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THE NATION IN ARMS.

TRANSLATED FROM THE GERMAN

OF

LIEUT.-COL. BARON VON DER GOLTZ,

BY

PHILIP A. ASHWORTH.

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PREFACE.

It is often quite as difficult to find an appropriate title as to write a book.

It is not tactics, nor strategy, nor a systematic course of military instruction that is the subject of the following pages; and now that they lie in a complete form before me, I am really in doubt as to what to call them. A name must be found to denote their contents, and one which, at the same time, does not promise more than it can perform.

The affairs of the nation in arms are here to be treated of; to the nation in arms my book is addressed, and it shall, accordingly, be thus entitled—

"Nation in Arms:"

a poetical saying, and a royal saying as well, spoken at a critical time.

"The Prussian army will be also in the future the Prussian nation in arms!"

Thus ran our King's promise in the Speech from the Throne on the 12th January 1860. It has been since then fulfilled, and has been proven in three great wars. It became the watchword for the development of the armies of our time. To their service be the following sketches dedicated, and may they serve to kindle in all German hearts a true understanding for the saying, a "Nation in Arms."

THE AUTHOR.

Friedenau, near Berlin.

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INTRODUCTION.

A MILITARY writer who, after Clausewitz, writes upon the subject of war, runs the risk of being likened to the poet who, after Goethe, attempts a Faust, or, after Shakespeare, a Hamlet. Everything of importance that can be told about the nature of war can be found stereotyped in the works that great military genius has left behind. Although Clausewitz himself has described his book upon war as being something yet incomplete, this remark of his must be taken to mean that he, too, was subjected to the fate of all aspiring spirits, and was forced to feel that all that he attained lay far beneath his ideal. For us, who know not what this ideal was, his labours are a complete work. I have, accordingly, not attempted to write anything new or of universal applicability about the science of warfare, but have limited myself to turning my attention to the military operations of our day. This book has only been written for the present.

Although the leading principles of military operations are eternal, yet the phenomena with which they have to deal, and with which they have to reckon, are subjected to continuous change. War, as an act of human intercourse, is, in its external form, subject to all the same

transformations as the latter. Railways and the telegraph, which open new ways to trade, have also opened paths to military operations which were hitherto closed to them. Technical science, which gave industry more perfect machines, has also placed in the soldier's hand new weapons, with which he produces effects never dreamt of by his fathers. The laws of the science of war are, accordingly, continually changed in their application. We may rightly say that every time has its own peculiar mode of warfare, and, moreover, that the strategical plans which, in 1870, led us to victory, cannot now, somewhat more than a decade later, be regarded, without more ado, as a model for the future. New conditions have been ushered in by the present which compel us to devise new schemes and means.

All the great Powers of the Continent have, during the last few years, exerted themselves to increase the strength of their combative force. Either there has taken place, as in both France and Russia, a perfect re-organisation of the military system, or, as in Germany, attention has been paid to providing, within the old system, better means for using it to advantage in a campaign.

The late wars display five great battles—Königgrätz, Wörth, Vionville, St. Privat, and Sedan. Even what we saw developed in these will, in the future, be developed on a far greater scale. At Königgrätz, almost the whole army that was present in the Bohemian theatre of war was engaged in a single spot; and at St. Privat, more than the half. If these conditions be compared with those obtaining to-day, we shall find that gigantic struggles, in which ten to fifteen army corps, under a single commander, will confront a foe of equal numbers upon the same field of battle, belong no more to the impossible. These are figures which have not as yet in our times been

realised. The influence they must exercise upon the commissariat and the movements, as upon the mode and method of conducting a war, is easily conceivable.

France has given the first instance of an artistic arrangement of theatres of war. That country stands, for the present, alone in this respect, and exceptions may, therefore, be disregarded. But, to begin with, there is still a possibility of its being imitated in countries whose geographical contour permits of it; besides, it has already made itself indirectly felt. The idea of combining siege operations, which hitherto formed a special and separate study, more and more with warfare in the field; and, again, the making more frequent use of entrenchments in operations in the field, is everywhere mooted. Even the assailant is, in many cases, recommended to carry a spade.

Whilst these resources benefit the infantry, the partisans of the cavalry cleave to the belief that their arm is destined, owing to the increased powers of both man and horse, as well as to new modes of handling, to play upon the battle-field of the future a more active *rôle* than in the late wars. The idea must certainly not be disregarded.

No less must the last new phase be examined.

A principle now becoming established, in the case of the infantry, is no longer to leave the individual soldier to his own devices, but to comprehend a great number at once, under the direction of officers, and thus employ their weapons in unison, like a single machine worked by many men.

The precision of weapons has, moreover, been considerably improved.

This improvement has, ever since the Peace of Frankfort, occupied the attention of military geniuses. A considerable portion of the military literature of the last decade was devoted to questions arising from the increased

accuracy and effect of infantry-fire. Its importance has been over-rated. The subject, which was only new at the beginning of the war of 1870, was during its progress practically dealt with, and finally determined. At the close of the campaign, the German armies well knew how to deal with the increased range and accuracy of the new fire-arms. All the same, the matter occupied almost exclusively the attention of our military authorities, owing to the recollection of the severe and painful losses they had sustained.

Yet the influence which these new phenomena have exercised upon military science has, as a whole, been but scantily dealt with. Apart from its philosophical side, the nature of war on a great scale has only, in quite recent times, again become the subject of exhaustive treatises.

I crave, accordingly, indulgence for my attempt. My intention is, before all other, to urge that the attention which has been hitherto almost exclusively devoted to generalship, shall be more and more devoted to strategy.

The chapters of my book will present to the individual soldier only well-known matter. Perchance the systematic arrangement of the whole may be to him of some advantage; yet the main object of my work is to create, outside military circles, a clear conception of the nature of war. The desire to be instructed in it has been already widely expressed, and *a true comprehension of the nature of war does not contribute least of all to the martial efficiency of a nation.*

The day will come when the present aspect of war will disappear, when forms, customs, and opinions will again be altered. If we look forward into the future, we seem to feel a time coming when the armed millions of the present will have played out their part. A new

Alexander will arise, and, with a small host of well-trained and skilled warriors, drive impotent masses before him, when these latter, in their endeavour to increase in numbers, overstep the right bounds, and lose their internal efficiency, and, like the green-standard-army of the Chinese, become transformed into a numerous, but peaceable, host of Philistines.

In that day, of course, all that has been said and written about mass-armies and their employment in war will be of no account. But this is, as yet, a long way off. For the present, the development of armed nations is still on the increase. It is upon the fact of their existence that the following treatise is built. It does not behove an ordinary mortal, in the midst of an active and energetic career, to strive to pierce into the future. Does he do so in his attempt to make his work outlive the times, he will run the risk of depriving it of its value for the present.

As a rule, a mid-European country is always assumed to be the theatre of a war. A war in the Steppes of Asia, and in the tropical climes of Africa, is quite different in its nature to one in Germany, France, Italy, and so forth. Only what affects us closely demands our attention.*

I consider myself free from the obligation of beginning with general definitions of terms. In military works, these, as a rule, take up a considerable space. A treatise, like the one here attempted, is usually wont to define what war is, and what strategy, tactics, &c. are, or, to use German expressions, what belongs to "Kriegs-Kunde" and what to "Gefechts-Kunde." The author frequently adds new terms to the old, in order to express the ideas he individually has arrived at. There is but little utility

* I must, moreover, remark that a small portion of the following treatise was the result of essays, which appeared some years since in one of our first literary periodicals.

in such a method. If I were, in this place, for example, to quote from my pocket dictionary this definition, "War is the bloody battle of two nations or political parties, of which the one intends to impose his will upon the other, and the other will not submit to it," no one would learn anything specially new. On this account all these terms shall be assumed to have been already defined, or shall be avoided as being such as require a special explanation. In war, the simplest things, such as men, horses, weapons, roads, and so forth, are concerned, and, therefore, it is possible to treat of war in the simplest manner, and to explain all that is necessary without feats of word-coining. Schopenhauer's saying: "The German writers would one and all perceive that they ought, wherever possible, to think like a great genius, but use the same language as everybody else," is also applicable to military writers.

* * * * *

And it appears to me, also, to be unnecessary to logically develop all that I say from its prime sources. Very often, after a long progress of distilling, nothing results except what is quite self-understood. I repudiate, accordingly, all thought-gymnastics of this kind, and prefer to follow various phases of war, confused and ever-varying though they be. Even though they are all internally connected, it is yet frequently impossible to prove what *that* connection is.

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THE NATION IN ARMS.

SECTION I.

THE ARMIES OF THE PRESENT.

1. *Plea for the Modern National Armies.*

We frequently hear the complaint that all advances made by modern science and technical art are immediately employed to the abominable end of annihilating mankind. Instead, it appears, of nations rising by such advances ever higher and higher in civilisation, they by this means become only ruder and more cruel; for with greater energy than ever they brood on mutual destruction. But this assertion is only seemingly correct. The nobler and grander a nation has become by culture, science, art, and wealth, the more it has to lose by war; and it will, consequently, be more careful to equip itself thoroughly for battle. We must not adduce, as a counter-proof, decaying civilised nations which, though their position is, in other respects, brilliant, have proved their inaptitude for war. The internal decay of their whole political and social life has ever been proceeding, although it has not shown itself. Perchance it was only intelligence that was perched on a lofty throne, whilst virtue was lost and gone. Luxury and pomp had long since ousted sense of duty, self-sacrifice, and public spirit; and thus the strength required for energetic action was wanting. As a rule, high culture and military power go hand-in-hand, as evidenced in the cases of Greece and Rome. Again, we must not advance exceptions, like England, whose military system is out of all proportion

to the development of the State in other respects. Protected by the sea, and with all its interests dependent upon and bound up with the sea, it has only colonial wars to wage, in which money plays the chief part. This latter is the sharpest weapon in England's hand. In addition to this, it maintains a fleet such as no other Empire can boast. But, in spite of all the advantages of its position, it will soon enough find itself compelled to follow the lead of the times, and to strengthen the organisation of its army, or it will gradually sink both in power and in its influence upon the Continent.

It is, however, perfectly natural that the great civilised nations of the present should bring to ever greater perfection their military equipments, in order, when occasion requires, to be enabled to put forth all their strength. The day of Cabinet wars is over. It is no longer the weakness of a single man, at the head of affairs, or of a dominant party, that is decisive, but only the exhaustion of the belligerent nations. The French nation asserts, even to-day, that it did not desire the war of 1870. But, when the Empire which declared this war fell, the same nation was at once ready to carry it on to the bitter end. The man who, in 1870, had been most earnest in his warnings not to declare war rashly, in September headed the nation, and took upon himself the leadership of the armies, only to become the most zealous instigator of the bloody struggle. Wars have become the sole concern of the nations engaged. And he, too, who is personally averse to military operations, feels the duty incumbent upon him of devoting himself entirely to them so soon as the victory or the defeat of his country is at stake. There is no one who would not deem such sentiments a virtue. A collision of interests leads to war, but the passions of the nations decide, independently of these, up to what point the war shall be carried. War aids politics in the attainment of their objects; yet, for the sake of subordinate interests, it must be waged until the enemy has been completely subjected. This necessarily entails the decisive use of all means, intellectual and material alike, tending to subjugate the foe; and it is, consequently, right and equitable in time of peace to prepare all available resources with a view to their being employed in war when occasion demands.

If, from humanitarian principles, a nation decided not to resort to extremities, but to employ all its strength towards stopping at a preconcerted point, it would soon find itself hurried forward against its will. No enemy would consider itself bound to observe a similar limitation. So far from this being the case, each would immediately avail itself of the voluntary withdrawal of the other, to outstrip it at once in armaments.

"Now humane souls may easily conceive that an artificial disarming or subjecting of the enemy might be effected without causing too many wounds, and that this is the true aim of all military science. Pretty as that looks," says Clausewitz, "we must refute this error, for, in such dangerous matters as war, errors which arise from good-nature are the worst of all. As the employment of physical force to its fullest extent in no wise excludes the co-operation of intelligence, it follows that he who makes use of this force regardlessly, and without sparing blood, must obtain an ascendancy, if the enemy does not do likewise. By so doing he frames a law for the other, and each competes with the other without there being any other limit but the inherent counterpoise."

And thus we have arrived at a perfect explanation. The fact that the sacrifices, which nations are called upon to make for the development of their military systems, lie heavy upon the shoulders of the living generation, cannot alter the case one jot. That nation which first began to retrograde in this respect would at once lose its position, its power, and its voice. It would have to bear the expense of every conflict that arose, and, taught by bitter experience, would very soon prefer to begin to arm like others, in order to make up for lost time. All disarmament projects are framed in misconception of our present political life, which proceeds from the tribal consanguinity of nations. Owing to the community of interests, which to-day prevails in every nation, the various peoples confront one another like persons among whom a natural inherent selfishness, even though some of them may display goodwill, is the source of disputes. National egotism is inseparable from our ideas of national greatness. This egotism will always appeal to arms when other means fail, and where should an arbiter's tribunal be found which were capable of dictating peace? Only a world-

empire could do this. But world-empires owe their being to wars, and are inseparable from wars.

The mutual mistrust that nations bear towards each other, makes all proposals for disarmament exceedingly suspicious. The first was made in the winter of 1800–1801 by the Consul Bonaparte to the ambassadors of Austria and Prussia. "The Court of Vienna certainly cannot desire aught better, but the difficulty consists in persuading the Court of Berlin to accede to it," was the shrewd Austrian reply. Upon this standpoint the matter will ever rest. Each and every Power must demand that another takes the initiative, and, owing to apprehensions entertained of others, none will be willing to take it; nay, each, on the contrary, will keep its swords sharp. Only that nation is secure which is prepared at any given moment to defend its independence sword in hand.

We must certainly reflect that, from the great expenditure entailed by a military system, an exhaustion may gradually arise which will sap the martial strength and vigour of the nation. The enigma to be solved in the present development of things is how to completely fuse the military life into the life of the people, so that the former may impede the latter as little as possible, and that, on the other hand, all the resources of the latter may find expression in the former. Universal military service has taken the most important step in this direction, for, since its introduction, those forming the standing army are no longer permanently, but only temporarily, withdrawn from work, and all healthy men are placed at the disposition of the military system.

True it is that the sacrifices, which this institution has, since its first introduction, demanded, have increased in a manner that was formerly held to be impossible. Yet this circumstance also demands to be regarded in the right light. Compared with the older system, a diminution of them can be proved. If a great Continental Power in these days wished to organise an army in the old fashion, viz. by enlistment, an army strong enough to play a great part, the expenses of the undertaking would run into enormous figures.

But, as the fusion of the military system with the national and political life leads, when *compared with the great results*, to a dimi-

nution of the sacrifices demanded, so, despite all appearances, does the turning to account of the advance of civilisation for the purposes of war likewise enhance the humanity of belligerent operations. The foe is conquered, not by the destruction of his existence, but by the annihilation of his hopes of victory.

"Fighting to the last man," as we may add to quiet uneasy minds, is only a strong figure of speech expressing a determination to fight bravely. It would sound curious if an army were to vow, before battle, to fight until it lost twenty per cent., and yet this would be more, and much more, than sufficient. As a rule, a loss of half this number on either side is sufficient to decide the victory. The destruction of a part of the whole withholds the rest from further exertions, and ends the struggle. The more surprising and the more crushing the effects of the weapons are, the sooner do they produce a decisive result, and thus it is shown that the battles are, as a rule, less bloody in proportion as the engines of destruction have attained greater perfection.

A single modern artillery projectile slays at one blow ten or twenty men, and produces an effect such as was only, perhaps, attained in former days after double the number had fallen victims to single bullets. In like manner, the effect of the fire of small arms has also been increased. We may compute it at 50 to 100 times that of the days when the Swedish musketeers boasted of their superiority over the Imperials (Kaiserlichen) because they only required twelve, whilst the latter took fifteen minutes to load their flint-locks.

The single engagements are far more terrible than formerly. But, to counterbalance this, they produce a much greater moral impression, and this latter, again, makes the whole struggle less bloody. No battle of modern times, in spite of all the military energy displayed and the enhanced effect of the weapons of war, has produced such carnage as did those of Eylau or Borodino. But most bloody of all were the battles of ancient times, in which the attack was made with a club or the short Roman sword.

The fact that each new invention and each new advance of technical science seeks, in these days, to be utilised in military service need not, therefore, alarm us, or appear to us aught else

than a retrogressive step taken in the direction of humanity and civilisation. By these means, on the contrary, the battle is only the more rapidly decided, and the war sooner brought to an end; and that is certainly to be desired, because war, in these modern times, by displaying itself in its natural and violent form, convulses all creation, and makes it quake to its foundations.

2.—*Dependence of Military Operations and the Military System upon General Civilisation.*

Historical.

Accustomed as we are to the phenomena of the present, viz. huge armies and an unsparing employment of force, we might believe that war and military systems had, from time immemorial, worn these natural features. Yet both were ever much dependent upon the state of universal civilisation, yes, even upon theories, and upon the views of right and the prejudices of the times. The simple conception of military operations which obtains to-day, namely, that war, where necessary, revokes all the rights which are incidental to a state of peace, did not obtain in former generations; and the application of force was bound up with certain forms, which were scarcely ever departed from, even under pretext of dire necessity.

There was a time when the troops camped in the cornfields and starved, when markets were held in the camps, as in peace time, and when the soldier had *himself* to purchase his meat and vegetables, whilst the administration of the army made the greatest exertions to provide him with bread as punctually as money. Höffner relates in the year 1806 how the troops of the main Prussian army camped, on the night of the 11th and 12th October, close by huge piles of felled wood, and perished with cold, and, even on the following day, remained without fire-wood to cook their food, and that it was only decided to seize those supplies for the army after the soldiers had helped themselves and felled trees in the neighbourhood. And the same writer tells us, further, how that in those critical days the supply of oats for the horses ran entirely short, whilst plentiful abundance was stored in the "Rathskammer" at Jena. But, although the French were

on the advance, the generalissimo of the army considered himself obliged to write first to the Supreme Ducal Administration at Weimar for leave to *purchase* what was necessary. What the answer was we do not know; but this we do know, that the oats fell into the enemy's hands, and that French horses solved the complicated question. And yet the Ducal Administrator at Weimar was no ordinary man, certainly no pedant, being none other than the Privy Councillor and Minister of State, Von Goethe, "a tall handsome man"—as he is described by a contemporary—"who, in his embroidered Court dress, well powdered, and with a hair-knot and sword, always showed himself as a true Minister, and well represented the dignity appertaining to his rank."*

Still greater curiosities of the same times have been recorded by Clausewitz. When the Prussian troops, after the battle of Auerstädt, were two whole days without any provisions, and on the third day arrived perfectly famished in a rich village, Prince Augustus of Prussia acted as is customary in these times in every war, and allowed provisions to be seized for his grenadiers, who were nearly dead from exhaustion. The peasants raised a great uproar at the iniquity of the proceeding, and immediately an old colonel of the Guards interfered, quite indignant at such conduct, and made the liveliest representations upon the subject to the Prince, to the effect that such a system of robbery was quite *unknown in the Prussian army, and repugnant to its spirit.*

On this account, General Kalkreuth, who was the temporary commander, had on the previous evening issued the order, "Bread shall be served out to the troops, and, if no bread is there, bread-money shall be given them." Now, bread-waggons were out of the question, as was also money; and Prince Augustus accordingly quite rightly remarked, "Give the soldiers money that you have not, to buy bread where there is none to be had." A number of similar anecdotes are told of the military customs of those times; stories that would-to-day be held to be almost incredible, but which were not in those days marvelled at.

If things of this sort could happen, even after the world had already experienced a number of Napoleonic campaigns, the peculiar views then held must have been due partly to practically im-

* Cf. *Marwitz Nachlass*, vol. ii. p. 11. Berlin, 1852.

portant motives, and partly to such as had become honoured in the observance.

They are not far to seek. First of all must be mentioned the recruiting system, which, combined with the old summons to arms, was, until the French Revolution, the best means of raising an army. The recruiting system brought the soldier into a kind of contractual relation with his sovereign and military chief. The former owed obedience, and the latter was bound punctually to pay what he had promised. Thereout arose that peculiar system of commissariat which almost alone gave to the military science of the last century its red-tapeism. It confined the movements of the armies within narrow limits, and chained them to magazines, bakeries, and burdensome camp-followers. Only a certain number of days' marches could be made forward in the same direction. At each further step in advance the artificial network behind the army was rent, and the transport of meal and bread could no longer be kept up by the strictly regulated communications between the magazines and the front. At the least, a delay was caused until new supplies were brought up, and new magazines constructed or established.. These considerations hung upon the will of the commander like a leaden weight. Even though geniuses of the first rank, like Frederick, occasionally freed themselves from them, yet the majority of the commanders adhered strictly to them. This system best secured punctuality in provisioning the armies, and this was, after all, the chief point, if the recruiting was to be successful, and if discipline and order were to be maintained among the troops.

Each soldier represented a certain capital, which the captain of the nation had to supply from the war-chest, that is—according to the notions of those times—from his own treasury. Thus arose pedantic calculations of money and men, such as is unknown to our military system. Besides, part of the army was composed of foreigners collected from all countries. Popular feeling was no universal bond of union. Only in a measure was it replaced by loyalty to the hereditary sovereign. The troops were accordingly only kept together by fear. Whole armies marched in unbroken compact masses. They bivouacked in over-scrupulous order. Only thus was it possible to exercise a strict surveillance over them, to

prevent desertions and, at the same time, to provision them from the camp-bakeries, and to hold markets.

Such a force, raised at such an expense, was set in motion and employed at the sole beck of its commander. The "line tactics," which were framed with a view of bringing all the men, advancing in parade march in open order, into action, and all weapons into fire, was intimately connected with these conditions. Only with such tactics was it possible in battle to keep the paid soldiery under the watchful eyes of the officers. A chain of peculiar circumstances thus laid down the laws for the military operations of those times, and it was almost impossible to effect the slightest change without abandoning the whole.

We must not under-estimate the force of the theories arising from such conditions as these, which circumstances imposed upon military operations. False doctrines have before now led armies to destruction and brought states to ruin.

The weakness of the Allies in the coalition-wars was, in great measure, due to the stiff views which, in the period following the Seven Years' War, prevailed among learned strategists, in that they endeavoured, as far as possible, to act both scientifically and artistically. Thence arose the unwholesome disintegration of the combative forces, the tediousness of military plans, the exaggerated importance paid to fortresses and to the geography and terrain of a country, even to the geometrical conditions to be observed in projecting movements; in short, the frightful circumstantiality which rendered every undertaking as lengthy and as difficult as possible. Hence arose that disastrous conception, which conceived the nature of war to lie in the execution of cleverly-devised manœuvres, and not in the annihilation of the enemy's forces. In this way may be explained the frequent purposeless expeditions, the formation of intermediate and flank corps, and of long chains of small detachments, the demonstrations and feints, all of which are so peculiar to those times.

Thus may be explained how that in the year 1805, whilst the decisive issue lay in Moravia, the Prussian army advanced in full strength into Franconia, on the upper Main, more than 200 miles away, in order by the force of a manœuvre to compel Napoleon to retreat across the Rhine. And this may explain how it

was that, at Russia's emphatic request, shortly before the battle of Austerlitz, two battalions and 100 horses marched from Glatz to the frontier, in order by this threat to exercise a moral effect upon the main French army. Heaven knows whether in those days, or even down to our day, a single Frenchman ever heard anything of this threat, which was devised to dismay his Emperor on his triumphant march.

To the same cause are also attributable the mistakes of 1806. It was the sickly-artistic conception of war, and not the inefficiency of the Prussian army, which led to the disaster. The hesitation of the Allies, at the beginning of the campaign of 1814, in crossing the Rhine, and the movement of the Bohemian army towards the plateau of Langres, betrays the remains of the old military doctrinaire school. This school celebrated its chief triumph when Massenbach, on his retreat from Jena and Auerstädt, ordered Prince Hohenlohe, who was in Rathenow, not to march upon the Oder, but to make a detour to the north, in order to place a brook between him and the enemy; and this though the enemy was not there, and the brook so dry that it was no impediment. The defeat of the army at Prenzlau was the consequence; but Massenbach had described the direct march between the brook and the enemy as a strategical enormity, and it was quite in harmony with the spirit of the times to disregard all the means of safety, rather than to be guilty of such a deadly sin against the rules of military science.

In the most critical moments of decisive wars, inveterate theories as well as tradition and usage have asserted their superiority, without the interested parties being properly conscious of the fact.

The shrewdest men showed themselves subject to the ban of the past. The cleverer and more illustrious the men who had introduced and defended these perverse theories, the more unwholesome the effect of them. Such errors were always committed in the military world, so soon as it began to separate itself from a straightforward and simple conception of the laws of strategy, to forcibly inspire with military genius ordinary and sober facts, and at the same time to disregard the natural meaning of things, and the influence which the human heart exercises upon decisions and deeds.

Prophetic were the words which Scharnhorst wrote shortly before Prussia's great catastrophe: "We have begun to place the art of war higher than military virtues; this has been the ruin of nations from time immemorial."

Warmth of feeling and a certain enthusiasm, whether it be directed towards the idealistic fulfiment of a duty, towards honour and glory, towards love to a great man, or towards attachment to the Fatherland, both these are inseparable from success in war. These prevent a nation going astray; and a race can only be guilty of such things that has, besides losing its sense of the simple use of its intellectual faculties, also lost its good moral qualities.

That was the case in those times. The shallowness of the period of enlightenment permitted of no deep feeling. Only an event that shook all established principles as an earthquake shakes the foundations of the earth, was able to thoroughly clear away the pettifogging red-tapeism, the prejudices, the customs, and the learned nonsense of the former century, and bring about a complete reform.

This event was the French Revolution. It marks the commencement of the present epoch of military science, and will endure until new and universal social changes produce other bases of political life and military systems. The French Revolution annihilated at a single blow the scrupulous hesitation to make war feed war, to annul civil rights, when the cannons roar, and to live from the country in which the campaign takes place.

The Conscription furnished men in sufficient numbers to allow of their being lavishly sacrificed. The modern financial systems rendered it possible to raise loans by subscription, and, instead of only the small state treasury, placed the whole credit of the state at the disposal of the army. Thus war became to be more mobile, and the general was freed from all anxiety with regard to bread and meat. Strategy and tactics assumed a more vigorous and pronounced character. The living on the enemy's country obliged the armies to extend themselves sufficiently, and to divide up their forces; and allowed besides the several divisions to be more independent. The recruiting-system disappeared; and with it the fear of desertion. The dividing and breaking up of the martial masses was henceforth fraught with no danger. But, in order to

provide for their being collected together at the critical moment, advance guards and masses of cavalry were sent on ahead of the columns.

For "line tactics," moreover, well-drilled troops were of permanent importance This rapidly disappeared, owing to the enormous sacrifice of men in the epoch of the Revolution. The Conscription now furnished soldiers of less perfect training. The "line" accordingly died out, and the column took its place. This, in consequence of its compact form, would soon have been destroyed by the fire, had it not been possible to protect it in some measure by skirmishers. Columns and skirmishers fought henceforth in close connection. Both naturally showed themselves much more pliable than the rigid lines with their parade-like advance-march. The latter were essentially dependent upon open country, but, from this time on, this restriction also disappeared. All manner of terrain was utilised by the combatants to its fullest extent, due regard being paid to its contour. In this manner, not only all the forces at the disposal of a nation, and also all the resources of the scene of hostilities, were devoted to the war, but every ground could be made a battle-field, so soon as circumstances demanded it. The French Revolution restored to military operations that originality and simplicity which they had forfeited, together with their whole nature, in those courtierly days, in order to make room for a ceremonious system that consisted partly of vanity and partly of intellectual poverty.

Frederick the Great proved to the world what great things could be achieved with the restricted and artificial resources of olden times. Napoleon, standing at the commencement of a new period, taught, at the same time, the extent to which war in its unfettered and unrestrained form can go. Upon his principles our modern ideas are in the main based. He recalled to the mind of the world what the great Prussian King had already taught it, and what it had again forgotten, namely, that in war everything depends upon the destruction of the enemy's army, and that the battle is the end to be sought.

Prussia outdid the conscription, which was always attended with hardships and always pressed heavily upon the lower classes, by a system of universal service, the prime idea of which was to

distribute the military burden equally among all classes. This universal service woke into life the systematic education of the people for armed and military service.

Railways, which were unknown to the Napoleonic times, provide for the rapid collection of the belligerent forces. They do away with the preliminary stages which preceded the wars of former days, but make in return the preparation for hostilities in times of peace, and the transition to them, namely, mobilisation, when compared with former times, an act of the highest importance. The effect of the modern fire-arms is to drive the columns of the Napoleonic epoch out of the field; but their mobility has been transferred to the lines, divided up into detached bodies, and accommodating themselves to every ground. The new weapons demand, moreover, good training on the part of the rifleman, upon whom far greater demands are made than formerly. This is the way by which we have arrived at raising armies from the whole national strength; at training them, in times of peace, in the best manner for war; at furnishing them with all the resources that intelligence, wealth, and intercourse can provide us with; and at giving them an organisation which allows of a transition from a state of peace into one of war in the shortest possible time. Upon the existence of such armies and upon the principle of employing them unreservedly for war purposes, are based the phenomena displayed by our modern warfare.

Not less dependent are the defensive systems. They are intimately bound up with the state of culture which the nation has attained.

An illustrious writer of olden times, the Hanoverian Friedrich von der Decken, a friend of and co-worker with Scharnhorst, allowed, in this matter, the manner in which nations live to decide the question. Only in the case of hordes, who are without any fixed place of residence, does the whole people—old men, women, and children included—take part in the struggle; for their mode of life is warlike. They lack, also, the strongholds where to hide the weak and defenceless; in the case of a defeat, everyone falls a victim to death, and hence no one withdraws from the duty of defending his race.

Where a people has chosen fixed settlements, and secured its

existence within them, it still has, as a rule, to survive a period in which, for the sake of its existence or self-preservation, it is involved in ceaseless wars with its neighbours. That is the time in which all men capable of bearing arms voluntarily take part in the war. Men and soldiers are convertible terms. The heroic age of every nation falls in this period of its development.

If the existence of a nation is externally secured, culture makes rapid strides, and gain and property begin to play a greater part than the desire for war. "The love of rest and enjoyment spreads rapidly like an infectious disease." The defence of the country is left to a portion of the population, which, in return for its services, enjoys especial advantages or honours. A rapid improvement in arms takes place, because, on the one side, the nation becomes conscious of the beginning of weakness, and, on the other, of the worth of its existence. In this period fall the voluntary militia and feudal systems.

Generally, as further progress is made, external circumstances give the first impulse to the formation of standing armies. So soon as Augustus decided to permanently watch the frontiers of the Roman Empire, the Roman army ceased to be a militia, and assumed the character of a standing army. The modern armies of this kind owe their origin to the rise of absolute sovereignties upon the ashes of the old feudal system.

The standing army may, therefore, according to the nature of its origin, be of a varied character. Decken declared that system to be the most perfect in which one part was raised by recruiting, and the other by soldiers furnished by the country. Thus was it possible to write in the year 1800, in which the author's book was published in Hanover. The old Prussian cantonal constitution was before his eyes; a constitution that was, in fact, a work of art, and was regarded in those days as a model. At the same time, it is certainly an instance of the great dependence of the defence institutions upon the peculiar relations of political life; therefore let us here devote a few words to it.

If Prussia was ever to rival the House of Hapsburg, and to attain independence in the German Empire, it was before all else necessary to have a large army. But such a one, drawn from a poor and, as yet, sparsely-populated country, would

have taken too many hands from the tillage of the soil, and a rapid exhaustion would have ensued. That led to the idea of combining recruiting with a well-organized land-militia. The nucleus of the army was formed of recruited soldiers, raised by recruiting-sergeants in all countries, all serving for life, and who always remained together and formed the real standing army. Such were soldiers by profession, and veterans well fitted to be drill-sergeants and leaders of the young recruits. The "White" Grenadiers were highly esteemed. Having become unfitted for military service, they settled in the country and increased the population, and, while yet soldiers, plied, as a rule, a trade in addition to the profession of arms. The "cadres" thus formed were brought up to a considerable war strength by the native contingent. The last-named served only a single year in time of peace; in later times only three months even, for their first training, and were then annually called out for drill for a period of from four to six weeks. Each regiment was raised from a certain canton, and the levy was made in as orderly and legitimate a manner as in our times. Those who were selected enjoyed, as against their manorial lord and his officials, many advantages, and their lot was not nearly so bad as it has been the fashion in later times to describe it. Their actual time of service, including all the times they were called in, was at most one year and a half,* although they remained for twenty successive years soldiers; because for eleven months of the year they were always at work at home, and thus these countrymen formed nothing more nor less than a land-militia, but which, nevertheless, blended with old soldiers, passed through the ordeal of a seven years' war. Only in this way was it possible for the small country to support a military force, which numbered hundreds of thousands, and to successfully cope with the hosts of three great Powers. By this means alone was Frederick the Great enabled to carry out his policy.

A chain of circumstances, which on the one side takes its rise in the state of the peasantry, and on the other extends up to the high policy of the king, produced the ingenious defence-organisa-

* We must here point out how false it is to quote the disaster of Jena and Auerstädt as an historical instance speaking against armies with long service. Precisely the opposite is the case.

tion, which was exactly suited to the times of Frederick, but which, to the misfortune of the State, was still retained, even when the reason for its existence had disappeared and the demands made upon it had been entirely altered. We have since then proceeded a step further in the development of standing armies. Friedrich von der Decken's saying is no longer correct, the blending of recruiting with levying is unnecessary; nay, according to our views, even objectionable, because common affection to the one Fatherland and the feeling that the service of arms is an honourable and natural duty, and not a mere labour for money, must create the bond of union in an army.

We no longer require foreigners, because the country possesses sons of its own in sufficient numbers both for army and for labour. We need no longer paid recruits, because we can fill up our "cadres" from those who flock to the standard of their country. The defence-system of our country, based as it is upon the universal service of its sons, is in harmony with our conception of the modern state, as being a union which accords to each of those belonging to it like protection and advantages, but which, on the other hand, also owns the right of imposing like burdens upon each. In its nature it is an ideal defensive organisation of a civilised people. Only in its practical application, in which many other subordinate considerations are involved, it still remains behind it. But defensive organisations do not entirely depend upon social considerations. Geographical ones, as in England, and political ones, as in North America, play a great part. The matter is accordingly an international one. The defensive systems of our neighbours partly influence our own. Imitation, too, has exercised remarkable influence.

And thus do defensive systems, like military operations, wear an ever-changing face. They require change, and experience teaches that reorganisations taken at the right time possess a reviving and strengthening influence. Napoleon's saying, that tactics ought to be altered every ten years, we may rightly supplement by saying that this must also, at definite periods, be the case with the defence system; only every such system must be careful to keep in harmony with the other conditions of the nation, if it is to live. *Every good defensive system has an express and definite national character.*

Elements of the Army.

Our present military system, which is similar to that of all European great Powers excepting England, has the advantage of providing an army uniform in all its elements. It furnishes young soldiers to the "field" army.* In this arrangement is much wisdom. In everything appertaining to military matters, the peculiarities of human nature must be consulted. The "field" army is exposed to the severest losses. The prospect of dying for the Fatherland comes nearer home to each member of it than is the case with the other limbs of the army. The "field" army fights the battles, and it is the "field" army that has to face the anxieties and the terrors of war in their most serious aspect. All this the young soldier endures, in spite of all assertions to the contrary, more calmly and better than the older soldier, although the former lacks the bodily strength of the latter.

It is only the young that depart from life without pangs. They are not as yet fettered to this earth by the thousand threads that civil life winds round us. They have not as yet learnt to be parsimonious with the use of life. The enigma that they are curious to solve lies untouched before them. They mount the hill, and do not perceive how short the precipice is on the other side. Their yearning after experience rouses their ardour for war. Rest and enjoyment, and the aims and aspirations of riper years are as yet far removed. They advance into battle with joy and lightheartedness, and both these are necessary for the bloody work.

The Strength of a Nation lies in its Youth.

Our military system leaves the soldier in the "field" army until about his thirtieth year. Older writers have recommended the time from the eighteenth to the twenty-fourth year as the best for military service. The body is then quite vigorous enough to endure hardships, and the soldier is as yet free and unfettered. The touch of headstrongness, a quality peculiar to the freshness of youth, is an excellent salt for martial achievements.

* In so far as it replenishes the latest drafts of those doing compulsory service with the standard (who have, under professional officers, remained in constant practice, and thus possess the greatest martial training) by the yearly drafts that have been already dismissed, and which come next after them in age.

A young "field" army, and, indeed, one uniformly young, possesses great advantages over every other. An army like the old Prussian, in which a young aristocrat of fourteen summers, native soldiers of twenty and thirty years of age, and grey-haired foreigners of sixty to seventy years, stood shoulder to shoulder, could not possibly be of such a high internal consistency. The employment on active service of aged men will only be productive of good fruit in exceptional cases, where peril to hearth, home, and family has become dangerously near, and defence is incumbent upon all. Again, older men, after having completed their service in the army, return to their domestic employments, and become disaccustomed to a soldier's life before the outbreak of war again summons them to the standard. They have, in many cases, experienced the cark and care of life, and oftentimes leave behind them a disordered home. All this in no wise enhances their inclination to brave death for the Fatherland.

Experience, in the short wars of our day, plays but an insignificant *rôle* for the private soldier. Its advantage is, properly speaking, restricted to a knowledge of the practical needs of life in the field. Our ideas of the value of veterans date from the time of "professional" armies pure and simple, or from the days of such as had become professional owing to constant wars. In those days the soldier was cut off from a civilian's life. He found his home amongst arms, became an adventurer, and battle was the sole aim and object of his existence. Under such circumstances a military "dilettantism" might easily become developed in veterans—a dilettantism which, though capable of great achievements, would not, in these days, be capable of expansion.

Experience even works injuriously upon courage. Those soldiers are, as a rule, the bravest who know no danger. It is otherwise with leaders than with soldiers. They must not be surprised and confounded by the new phases and phenomena of war. For them experience is of genuine value; and it can only be replaced in part by the study of military history. Veteran generals and officers have in these days also maintained their old honourable position; but in the ranks "veteranism" has lost its former significance.

It is right that our military organisation banishes old soldiers

from the active army. Exceptions, it is true, there are arising because we have to reckon with the competition of neighbouring states, and with a host of other circumstances.

Up to what age the State may demand military service depends upon the force of circumstances, as it also does upon the degree of danger under which it lies. By the rules of law valid in times of peace, civilised nations do not generally exceed the fortieth year in their demands. But an hour of peril permits of exceptional laws, and the old mercenaries proved that many men remain efficient in the ranks for ten, and even twenty, years longer.

The military system of our day involves multifarious gradations of service. The classes that follow next after the active army will always be formed in bodies which, in case of need, can be employed to strengthen it, and, whether as reserves or intermixed with the real active troops, to fight in the skirmishes and engagements of the open field. This kind of troops, of which "cadres" are not, as a rule, formed in times of peace, is also naturally entrusted with the duty of guarding the railways and roads, and with the occupation of the country lying in the rear of the army that has invaded the enemy's country. Here the duties of active and garrison troops are combined. Numerous fortresses, open towns, railway stations, depôts, hospitals, magazines, bridges, and so forth, must be held, in order that the transport shall not be impeded. The endless convoys of provisions, convoys of sick, wounded, and convalescent soldiers, of prisoners of war, *matériel* of all sorts, and of horses and cattle, always going on in the rear of a great army, demand an extensive escort-service. The territory that has been occupied by the invading troops must be forcibly administered, and this cannot, as a rule, be done without military assistance. Attempts to cut transport, armed bands, and a rebellious disposition on the part of the population, must be prevented or suppressed. Both sentry duties and patroling, which frequently leads to skirmishes, are entailed upon them, and demand a wearing activity which only differs from that of the "field" army in the fact that the great engagements and the considerable losses of a pitched battle are wanting. Moreover, so long as the war is carried on in a civilised country, the troops actively engaged in the rear of the army are only exceptionally

compelled to bivouack in the open, and can, for the most part, perform their duties whilst lying in good quarters.

In sieges, again, such active-reserve troops (Feld-Reserve-Truppen) are aptly employed, because the duty here, though difficult, is regular, and demands no great motion and skill. They must be utilised on all occasions where subordinate operations for which the regular active army unwillingly detaches troops are being undertaken, in order to be as little as possible withdrawn from their chief object, namely the annihilation of the hostile active army.

Less mobility, vigour, and freshness still is required by garrison duty in the fortresses at home. Even when the enemy invades the country, it is only one portion of the fortresses that is threatened, and only a few are really besieged. In these it will often happen that a number of active troops are engaged to relieve the regular garrison troops. Oftentimes, when great and important towns, and certain districts of the country, are to be occupied for the maintenance of order, only transport and guard duty on the railways falls to the garrison troops; for, of course, the older elements, no longer quite fit for active service, cannot be placed in such positions.

Furthermore, there follow a number of duties which can be perfectly well discharged even by bodies of troops which are insufficiently versed in military matters, such as the guarding of prisoners and prisons. The guard and signal duty on unfortified coasts, on rivers, and in mountains, can be discharged by levies which, like our "Landsturm," do not belong to the army proper. And, again, for the administration of the army, labour is extensively required in the country. The army hospital service too requires many hands.

Thus even men of advanced age can be usefully employed, and men utilised who have not, even in peace, served under arms, in order that each and all, in the various duties they perform for the army, may pay their tribute to their Fatherland. Quite independent of these latter are the *reserve troops*, whose duty consists in training and getting ready fresh drafts for the army in the field. How important this duty is, was seen in 1870, when the drafts sent to the front of the German army to make good losses of all

kinds consisted of 2,000 officers and 220,000 men, whilst by the end of March 1871 an almost equal number was at disposal at home with the reserve divisions. In exceptional cases, these troops are also employed for other purposes. The drill duty which they have to undergo can, for instance, be well combined with guard and garrison duty. However, this employment of them outside their proper sphere can easily become prejudicial, because there is a danger that thus this source of fresh reserves may become closed to the army in the field.

Thus can the various classes of troops be distinguished according to their varied duties; yet the line of separation must not be too strictly drawn, because circumstances may require that the sphere assigned to each may be altered temporarily, or even for a long period. Everyone who is not quite a cripple can, in these days, make himself useful in war, provided he only have a good will; for the duties incumbent upon an armed force are, indeed, manifold.

Division of the Army.

A proper division of the army is also of importance. Seeing that the national military system pervades all the relations of social life, and continuously demands the joint co-operation of the civil and military authorities, the result is that the division of the army should, as nearly as possible, coincide with the civil, or, in ordinary language, the "political" division of the State.

A coincidence of the political and military divisions has the great advantage of rendering each separate division of the army independent, like the army of a small country. The province in which it lies provides it with men and horses. There lie its stores and depôts. Its commanding general and the highest civil authorities are independent within their several spheres, and are furnished with sufficient powers. They can, of their own responsibility, take the necessary steps and decide what shall be done, without first appealing to the central authorities.

This independence of the several divisions of the army not only lightens and facilitates the whole course of business, particularly the mobilisation of the army for war, but it also accustoms the

commanders of the higher ranks to that initiative so necessary in war, as well as to acting on their own responsibility. It enhances the internal strength, as every part has its own roots, and it lends to the whole military machine elasticity and simplicity.

This division into independent bodies (army corps) corresponding to the territorial provinces, has so many advantages that it was attempted in very early times. Whilst it was regarded to be impossible for France before the year 1870, it was proposed in Prussia for the first time in 1795, and the formation of an East Prussian, a South Prussian, a Silesian, and a reserve corps was taken in hand.

At that time, it is true, this useful institution was not completely carried out in practice, but the idea was again mooted in 1813. To a certain extent the old distribution of the military arrays of ancient empires is revived, when subjected peoples furnished the independent bodies of troops.* It is the natural arrangement in a great political system that cannot be administered and governed from one central department. But it is a necessary condition that the State be healthy, and the authority of its Government well established. In a country where the dominant power cannot implicitly rely upon its strength, where it must ever fear sedition and secession, it will not, in spite of all military advantages, dare to leave the several divisions of the army thus independently organised in their several centres. It would, by so doing, throw away an instrument that can be as well used against it as for it. Russia neither dares organise in Poland a Polish army corps, nor in the Caucasus one composed of Caucasian soldiers and officers, and deliver into their hand all the workshops, stores, and arsenals, and so place them in a position, at all times, to take up arms.

The result of such an institution in Poland was the bloody war of 1831. England, in introducing universal military service, will take good care not to compose Irish army corps of national elements, nor France Algerian. And thus again it follows that good order in the State alone presupposes good order in the army.

* Only that they were not of equal strength, upon which to-day particular stress is laid.

The Army.

In great European armies several army corps must always be combined together to form an army, because otherwise the field marshal commanding would be obliged to take the immediate disposal of eighteen, twenty, and more corps; and the whole administration would, in consequence, be very cumbersome. How many corps should form an army depends upon circumstances and upon what is required of the army, and, not unfrequently also, upon the rank, qualities, and renown of the general in command. Personal considerations often play a great part. In modern wars that has been called an army what was really only an army corps, because the commanding officer was a distinguished nobleman.

Touching the question how many parts ought to be combined to one whole, Clausewitz, in his book upon war, has, under the heading, "Order of Battle" (Schlachtordnung), made all the ingenious and clever remarks that can possibly be made. He rightly draws our attention to the fact that the greater the subdivisions, the smaller the influence of the commander-in-chief, and *vice versa*. That, however, does not affect us, because the strength of the army corps is regulated and fixed by the organisation in time of peace. Now, if he means that the army is best composed of eight divisions, viz. one for the advance guard, three for the main army, two for reserve, and one for despatching left and one to right respectively, he must intend smaller divisions. Eight army corps, of modern strength, would give a much too unwieldy mass of men; and 250,000 men, with all their baggage, could not be easily controlled by a single department. The distances over which an army of such magnitude extends are too great, and the command impracticable.

A proof of this was furnished by the French army of the Rhine. It consisted of seven army corps and the Guards, altogether, therefore, of eight divisions of equal strength. But this mass was scattered over the whole country between Belfort and Thionville, and showed itself unmanageable enough; the commanders of the several corps waited for their orders, and the Emperor's orders, when they at last arrived, had been superseded by events. As early as the 5th August, the necessity was seen of forming several and

independently-acting groups, under the three Marshals, Mac-Mahon, Bazaine, and Canrobert, the Emperor reserving to himself the general command of the whole, and the special command of the Guards. The last, proceeding as it did from personal motives, was, of course, impracticable; for whoever undertakes the conduct of the whole ought not to busy himself with details, otherwise one sphere of action clashes with another.

On the German side, the second army, at the beginning of the war, consisted of seven corps, and even here the commander-in-chief was beset with difficulties, owing to the size of the machine. This he especially experienced on the 8th August, when, whilst inspecting one wing, he found the other out of sight and control. Before Metz there were, at times, eight independent corps, immediately combined under one commander-in-chief. Here this was permissible, because everything remained *in statu quo* for a considerable length of time.

There is now less importance to be placed upon having separate corps for advance guard, main army, reserve, and as cover for the flanks. The army corps march now, as a rule, upon separate roads, each corps in itself a small army, and with its own advance guard. That a whole army corps is told off as an advanced guard or rear-guard is certainly only a very exceptional case. Great armies will, of course, now and again, as the second German army in 1870 did, march in several bodies (*treffen*), and, in battle, whole army corps can be drawn up as a reserve behind the line of battle, as was done on the 18th August 1870. But, for the purposes of evolutions, such divisions are mostly valueless.

Besides the object in view, it is solely considerations of command and the difficulty of controlling such numbers from one centre that are of influence. If the experience of the late wars be consulted we arrive at the conclusion that an "army" is best composed of three to six army corps. Six, as were combined in the third German army, are an easily controllable combination. Three are certainly the smallest number possible. In an army consisting of but two army corps one must, of necessity, always be divided up and its unity destroyed, as was notoriously the case with the first army in December 1870 and January 1871. Theory certainly insists that an army so weak must be split up among

other units than army corps. But such an arrangement would, in our case, nearly always come to grief, owing to the fact that the two commanding generals could not be removed. Where, in time of peace, army corps exist, they must, in time of war, be also taken as they are found, and only smaller military systems, which do not in time of peace possess such large units, but whose armies are divided into divisions or brigades, can be otherwise constituted. We must, therefore, insist upon three to six army corps.

The Army Corps.

An army corps* we find to consist almost universally of a uniform strength of 30,000 men. Although its origin has become historically, and almost accidentally, developed, yet this numerical strength tallies with natural conditions.

After an attempt had been made in Prussia, in 1795 (though it was not acted upon) to distribute the army into army corps, the idea was carried out in practice in France during the war of Coalition, where various smaller and perfectly separate and distinct armies were formed, of the strength of our modern army corps. For instance, in 1792 an army of the North was organised consisting of 35,000, an army of the Centre of 28,000, an army of the Rhine of 17,500, and an army of the South of 40,000 men strong. Later there was added to these a Sambre, Ardennes, and Moselle army, all of equal strength. The sole command was in the hands of the Government, without there being a special supreme command of the whole of the forces at all. When this command passed into the hands of the First Consul, and, later, into that of the Emperor, the armies fell one step in dignity, and became army corps, which could be more easily welded together into the hosts with which Napoleon waged his wars. But, until 1805, the "corps" of the French generals and marshals were outside France usually called "armies."

Since then a sub-division of the "army" into "corps" for war purposes became established. Napoleon would, perhaps, have re-

* *Meckel Taktik*, Berlin, 1881, pp. 90–91, gives more exact information upon the army corps of the European Powers. *Blume Strategie*, Berlin, 1882, pp. 61–62, gives the organisation of an army corps, with which that of most of the German army corps of the present tallies.

tained it in time of peace, had a peace after his own heart been his. But it never came to this, and he formed the corps only for war, composing it on each occasion as seemed best suited for his purposes. Prussia, from the experiences gained in the "Freiheitskrieg," made the sub-divisions into corps part and parcel of its peace establishment, and, as changes in organisation took place in more modern times, the present strength finally resulted. 30,000 men of all arms, all equipped in the modern style, can move upon one road and deploy into order of battle to the front. The infantry marches in fours, the cavalry in threes, waggons and guns in single file.

This computation has, of course, not been made at random, but according to the ordinary condition of the roads and ways. Four men or three horses can everywhere march where the road is of the ordinary width. Upon broader high roads the columns may, of course, be formed wider, and several guns and carriages may move abreast. But where the road becomes narrower, the formation must be changed, as stated above, to four men, three horses, a gun, or a waggon; were broader order adopted, frequent halts would ensue, and the advantage already attained would be annulled. It is, accordingly, requisite to march from the first so that the passage is everywhere free; and it will only be when the network of roads in Europe has, in the course of the further development of civilisation, become completely altered, that the columns will be able to move with a broader front. But as land increases in value, as civilisation progresses, we can hardly look forward to a general widening of the roads. Moreover, a much broader marching order is scarcely possible, since, especially in a hot summer, it would be impossible, owing to heat and dust, to march in the middle of such a broad column. Across open country, where it is feasible to march in loose order, only short distances could be traversed on account of the natural obstacles, such as ditches, hedges, banks, or ploughed fields and standing corn; such a march soon tires the men out.

Thus, as far as we can see, the present order of marching will be adhered to for a considerable time to come; and here we perceive that the rear troops of an army corps, slowly moving in column, are at a distance of not less than 24 kilometres, that is about a full day's march, from the advance-guard. If the head of

the column comes into action, its rear division has to accomplish a task, such as can only be demanded of it under normal conditions, in order to come up to the front. But if any other corps was again behind, it would either not be in a position to do this at all, or would only reach the scene of action in such an exhausted state that energetic action on its part would be inconceivable. In the height of summer, provided the heat is not too great, it is certainly possible to march 30 kilos. in the morning, then to rest, and afterwards go into action. But in winter, when in our latitudes it is only light at 8 A.M., and dark again at 4 P.M., this is quite impracticable. The strength of an army corps must, accordingly, be calculated with a view to all seasons of the year. 40,000 men would represent a column of 32 kilos. in length, and 50,000 men one of 40 kilos. But we have not in our calculation included the transport, hospital, and commissariat columns, bringing up ammunition and provisions, or such as must follow the army corps, and to make bridges and the like. And these latter, unless the intervals necessary for regulating the traffic and for avoiding blocks on the road are omitted, also take up a length of 30 kilos. when on the march. And thus it comes to pass, that the rear of the baggage in a German army corps is a distance of two days' march from the front. In the case of a column of 50,000 men, it would be even as much as three days in the rear; that is, the rear of the baggage would hardly ever be able to reach the troops at all until after a long halt had taken place. If the army corps is considerably larger than 30,000 men, it must, under all circumstances, be divided up and made to march on two different roads. Each of the two divisions requires, accordingly, a separate commander. And thus it were better to make the divisions of a permanent strength; that is, make the corps smaller.

Again, were an army corps to be of a less strength than 30,000 men, the network of roads could not be sufficiently utilised, and this when the size of our armies and the difficulty of moving them is considered, is an important consideration. And it is impossible to meet the difficulty by allowing such army corps to march behind one another upon the same road; for, in such a case, the hinder one would either be obliged to follow close upon the transport

waggons of the former, and would, therefore, be more than a whole day's march from the head of the column, or it would have to insert itself between the first corps and its baggage, and the result would be that the first corps would be cut off from its commissariat and transport.

An army corps as at present constituted, consisting of 30,000 combatants, is, accordingly, the *largest and most natural unit* within the army. Of course the number must not be arithmetically and precisely restricted. By a small license—as, for instance, by allowing the infantry to march six, instead of four, men abreast, by shortening the intervals, &c.—the corps can be considerably compressed, and more troops can be made to march upon the some road; and, under urgent circumstances, the infantry may be made to march in the fields on either side of the road, the latter being reserved for the cavalry, the artillery, and the transport.

This was often done by Napoleon, though in his day the country was in a more backward state of cultivation. Moreover, the baggage can at times be left behind, and two army corps can then advance upon the same road, marching close together. But these are exceptional cases. As the enemy is also bound by the like conditions, he cannot, in a single day, bring more troops into action than our army corps can. From a purely theoretical point of view, this latter is accordingly capable of holding its own with any army of superior numbers for a single day, provided that this army only opposes it upon one road. But this certainly but rarely happens in practice, for where several "marching-roads" exist, the enemy, when superior in numbers, will take good care to utilise them, in order to avail himself of his greater strength.

From these reflections we are led to the result that an army corps must be completely independent; that is, provided with all that a fighting division can ever possibly require, either in the field or whilst manœuvring. It must, accordingly, be not merely composed of all three arms, infantry, cavalry, and artillery; engineers are also indispensable, as well as *matériel* for building bridges; the administrative department for supplying ammunition, provisions, and the necessary machinery for tending the sick and wounded, and even a separate stock of horses. The general in

command must also have at his disposal the reserves, which are in readiness in their district at home.

Only under these conditions can an army corps be entrusted with all duties which are required by war in a civilised country. Hence we perceive that a weak army corps is in a certain way a wasteful institution; for the administrative department, &c. must be almost as large in the case of a corps of 15,000 men as in that of one of 30,000.

To give an instance, let us examine closely the constitution of the German army corps. It consists of the staff of the general in command, with the administrative, sanitary, and judicial departments; further, of two infantry divisions, the Jäger battalion, which latter, however, is attached to one of the two divisions, the corps artillery, the ammunition columns, and the army service corps, which latter comprises the commissariat columns, the waggon column, the pontoon troop, a field-bakery column, a horse depôt, and a hospital corps.

The two divisions and the corps-artillery form the so-called "fighting part," with which we are here mainly concerned. The remaining elements are calculated on the basis of probable needs, according to the lessons of experience. The ammunition columns carry full ammunition for a whole day's fighting, whilst that required for a second day is carried by the troops themselves. A bloody and decisive battle of two days' duration would, however, cause no deficiency in this respect, provided the supplies were previously intact. The provision and transport columns can together supply the men and horses of the corps for five days,* the hospital can tend 2,400 wounded, that is as many as would probably require assistance after one day's battle. The "bakery" suffices in a civilised country, where private industry can be utilised for the daily bread-supply. The pontoon corps is capable of throwing a bridge across a river of average width, such as the Spree. The horse depôt contains a varying establishment of

* Strictly speaking, the five provision columns of the army corps have four days' supplies for the men, and the five transport columns seven days' supplies for the horses. As a matter of fact, both have like duties in the field, furnish men and horses with all necessaries of life, and supplies for at least five days, and probably six can be calculated upon, if we suppose all the columns to be properly laden.

horses, in order to replace losses; when leaving home, on the outbreak of hostilities, it comprises 200 horses.

Now a few words as to the *Infantry Divisions*. These, in a certain sense, form small independent army corps, containing as they do all three arms, viz. infantry, cavalry, and artillery, as well as engineers, a pontoon corps and a sanitary detachment, and are independent in all, save in respect of command food, and ammunition supplies.

The object in their case is the same as in the constitution of the army corps, namely, the capability of independently engaging the enemy. And this may not only be required of a division when acting separately from its corps, but may also be demanded of it in a general engagement, since the general in command often deploys both divisions of his army corps side by side, and assigns to each its separate sphere of action.

The divisions also have an historical origin. Duke Ferdinand of Brunswick created them in the Seven Years' War in his small army, composed of English, Brunswickers, Hessians, and Hanoverians. He found it practicable to keep these various contingents, composed of all three arms, together, so that they retained the same commanders at their head. The result was mutual confidence between the troops, a common understanding between the commanders, as well as a greater mobility and independence.

The French fought against him, and the same institution was imitated by the armies of the Republic, which also, being at first too small to form corps after the modern fashion, split up into divisions. They consisted as a rule of 9 battalions of infantry, 6 to 8 squadrons and 6 batteries, had each their own permanent commander, each their own staff, their own separate adjutant's and quartermaster's department, and their own engineers; and were, in short, small independent armies, properly numbering 12,000 men, but rarely exceeding 5,000 to 8,000. In the years 1805 and 1806, the Prussian army, though certainly at no favourable moment, adopted a similar division, and thus the divisions have been handed down to posterity, although the Napoleonic wars caused an interruption; for during this time the Prussian army corps were divided up into brigades. It is beyond all doubt and dispute convenient to have smaller bodies of men, who are under all circumstances independent, than army corps. These latter will accordingly only march

upon a single road where circumstances require it, and will everywhere, where feasible, make use of at least two roads, upon each of which a division best advances.

Towards the close of the Franco-German war, when the German troops were frequently compelled to spread over a very large tract of country, with the enemy in considerable numbers before them, but without being apprehensive of any very obstinate contests, owing to his diminished energy, it was frequently found necessary to sub-divide even the divisions, and to furnish the brigades with artillery and cavalry. They had tasks imposed upon them, such as under ordinary conditions are only required of divisions or army corps. It is only necessary to remind my readers of Kettler's Brigade that was opposed to the army of the Vosges near Dijon. But such an arrangement was only possible under the then existing circumstances, where the foe had but little martial vigour left. Our divisions, at the present time, consist of two brigades of infantry formed of twelve battalions each; a brigade of artillery of four batteries, a cavalry regiment of four squadrons, and one or two companies of engineers, to which is attached the pontoon troop. It is possibly a disputed point as to whether a whole cavalry regiment should be assigned to the division or not. In case the division is acting independently of the army, the four squadrons will not suffice to perform all the duties incumbent upon cavalry. If the division is with the army, four squadrons are a goodly number, for even in sending them on outpost duty, we must remember that great masses of cavalry are, in addition, posted in front of the army. In case both divisions of the army corps march, as will frequently be the case, in the future, one behind the other upon the same road, there will be but little room left for the cavalry regiment of the second division. One of two things must be the case; either it will be squeezed into the great column of march, in which case it will be of no use, or it will be placed in advance of the first division, perhaps overlapping it on both sides, and in this case it will serve other interests than those of the division to which it is attached.

It is, of course, very desirable for every general of a division to have some cavalry with him; but in our days, now that the army corps has become the chief unit both for battles and movements,

one or two squadrons are, at a push, sufficient. Where special tasks are imposed, extra horse must exceptionally be assigned to each division, but must in that case consist of more than one regiment.

After the two infantry divisions, comes the corps artillery forming the third limb of the army corps, numbering six to eight batteries. These are most indispensable to the general in command, to enable him to give a decisive turn to the action in which his corps is engaged. A line of cannon of this length soon makes its effect felt. To the point at which it appears and by its fire prepares for the attack, the infantry, too, involuntarily dashes. The front that it takes determines that of the whole army corps. No one but the general in command has a right to dispose of the corps artillery. The two infantry divisions are always more or less independent of control, for each general of division thinks he has a right of property in his own division; and, therefore, endeavours to make his will pre-eminently felt in it.

Much has been written and spoken upon the point, that a division of the army corps into two infantry divisions is not very practical. Clausewitz says: "There is nothing more clumsy than an army which is divided into three parts, excepting one that is divided into two, for then the commander in chief must be almost neutralized." And this maxim of his may be applied in the same sense to the army corps. In recent times, Meckel has pointed out the inconvenience of the duplicate division. The general in command, if he will not be altogether neutralized, must either rend asunder the unity of the division, or, if he wishes to spare it, must submit to be neutralized. Either of the two is a misfortune.

But this separation into divisions has in Germany been historically developed and is so intimately bound up with the whole peace organisation of the army, that it cannot possibly be abandoned without upsetting it. Accordingly, so long as the present constitution of the army remains as it is, we shall be obliged to content ourselves with the two divisions in an army corps. And so long must the corps artillery necessarily remain as its third limb. That it should be distributed among the divisions, a plan that has been often ventilated, might entail this disadvantage, namely, that it might deprive the general in command of the most

effectual instrument for personally controlling the course of an action, and of the best means of obtaining an ascendancy at the decisive moment.

The Cavalry Division.

The army corps of recent times have not remained the only large bodies of troops employed in independent operations. The Commander-in-Chief has to reckon with both army corps and cavalry divisions. These latter, which in earlier times were only formed for actual war, are now permanently organised in times of peace, or, at all events, temporarily constituted for the purpose of manœuvres. There is no natural numerical measure of what the strength of a cavalry division should be, as in the case of the army corps. Its strength is always the result of various conditions of organisation and of theoretical speculation. It is, like the cavalry division itself, a kind of artificial product.

The decisive moment in a cavalry engagement is the short shock at full gallop, when mere chance plays a great part. The cavalry must, accordingly, be quick at turning to advantage all the incidents of the combat; and, on the other hand, at counteracting unfavourable circumstances. The cavalry is accordingly divided into bodies (*treffen*), which engage, each supported by the other. And here it is believed to have been discovered that three bodies, viz. a charging, a manœuvring or supporting body, and a body in reserve (ein Stoss-, ein Manövrir-oder Unterstützungs-und ein Bereitschafts-Treffen) is the best measure. A single regiment of four squadrons is too small to have the requisite weight, and three are difficult to handle. It has been accordingly resolved to abide by the present arrangement; namely, to let these *treffen* consist of brigades of two regiments, each comprising four squadrons, or eight squadrons altogether. The bodies must all be of equal strength, because it is impossible to determine beforehand which shall be used for the charge, which for manœuvring and supporting the other, and which must finally be held in readiness to decide the engagement or to neutralise a reverse. It is at once the essence and the advantage of the three *treffen* tactics, which are adopted by our cavalry, that no one need scruple to employ each

treffen in the *rôle* properly assigned to another. Greater freedom is thus gained in turning favourable moments to account. As a rule the first *treffen* is the charge *treffen*, the second the manœuvre *treffen*. But often it will appear to be directly advantageous to manœuvre with the first and to charge with the second, in order to conceal from the enemy the direction from which the latter comes. The third *treffen* will always retain its original *rôle*, namely, to finish off the attack, or, in case of reverse to serve as a last support.

The attachment of some artillery to the cavalry divisions, which in modern times has been rendered absolutely necessary owing to international usage, is always advantageous, not merely on occasions, as for opening for the cavalry passes occupied by the enemy, but also in order to prepare the way for the charge by a surprise of fire.

The cavalry divisions consist accordingly of three *treffen* of eight squadrons each, and of one or two batteries of horse-artillery.

The army corps, the infantry and cavalry divisions are important units of troops for military operations on a large scale. In earlier times it was universally believed that the army needed, in addition, an artillery reserve. In great decisive battles this reserve played about the same *rôle* for the field-marshal as the corps artillery in our day does for the general in command of an army corps. Besides, its employment was limited to one or two days in a whole campaign, and the trouble of dragging such a cumbersome mass of guns behind the army was not found to be worth the labour. Besides, the commander-in-chief can, during the battle, form a large line of artillery, at will, of the corps artillery of several army corps. If they have been planted behind the front, to support a final charge, the employment of their corps artillery, as a reserve of guns, is the sole means of making use of the abundant and still available supply of artillery.

The other divisions in the army are of less importance. Whether the infantry division falls into two brigades of six and four regiments, each three battalions strong, or only into three regiments, each consisting of four battalions, does not make any very material difference. To me the latter seems to be the more practical; peace considerations necessitate, in Germany, the arrangement at present obtaining.

It might, perhaps, be of interest to discover the natural size of

the smallest units of troops. In the case of the infantry, it has been hitherto considered right to adopt such a measure of numbers as a man could under all given circumstances control by his voice. It thus appeared that a battalion of 1,000 men was the smallest available. The company was regarded as an indefinite body, formed for purposes of training merely, and for small administrative matters, and not for action. We may regard this point also as of paramount importance; namely, what body of troops can show itself *en masse* on the field without running the risk of being immediately annihilated by fire. As a rule it is allowed that the battalion offers too large a mark, and that it must, therefore, be split up into its companies as soon as it comes within the range of the enemy's fire. And thus it is seen that, strictly speaking, the battalion can no longer be regarded as the smallest unit of infantry; the company of 250 men has now come to be regarded as such. But the number of companies in an army corps is too large. It is impossible to deal with 100 companies—at all events much more difficult than with twenty-five battalions. Even the colonel commanding the regiment, were the battalions to be dispensed with, would experience the difficulty of having to control twelve distinct companies. It is accordingly practicable to retain the battalions, and to regard them still as the unit, although it will be plain to everyone that they are really only there for the purpose of simplifying the command and the movements of great masses.

In the case of the cavalry, the squadron of about 150 troopers is the smallest unit, a number based upon experience; 150 horses and the same number of riders can be rapidly inspected in the smallest detail by a single commander.

About the same number is here adopted as that which the country farmer in North Germany considers feasible to keep on a single farm. If his business increases so that more than 150 men and a like number of horses and plough-oxen become necessary, they are distributed among outlying farms.

In like manner the strength of the battery of six guns has, by practical experience, been discovered to be the proper indivisible unit for the artillery; whilst in old times the strength varied between six and twelve guns, and in still earlier times—for instance,

during the Seven Years War—the batteries were made up by the "park" to any required strength.

Battalions of 1,000 men, squadrons of 150 horse, and batteries of six guns form, accordingly, in Germany, the smallest bodies of troops; the army corps with its two divisions, a Jäger battalion, and the corps artillery, numbers 25,000 infantry, 1,200 horse, and 84 to 96 guns. If the staff and the engineers and gunners are also reckoned, we may in round numbers, as we have before mentioned, set down the whole army corps at 30,000 men of all arms.*

The cavalry division of three brigades of eight squadrons each and two horse batteries numbers 3,600 horsemen, with twelve guns.

In the case of troops that do not belong to the "field" army, it is permissible to organise the larger corps for active service as they are wanted. For the first reserve, the great bodies, such as the active army has, are most suitable; they are formed into divisions, or, it may be, into army corps. In the case of garrison troops, this will be only practicable where a considerable number are employed upon the same duty; as, for instance, the guarding of a district, a great centre, a fortress, a coast, &c. It will, moreover, be advisable to give the smaller bodies an independent existence, because, though combined in large groups, they must, in actual practice, be immediately broken up and detached from each other.

So much for the organisation and division of our armies.

The Officers.

"The soul of the Prussian army is in its officers." This saying of Rüchel may, at the time it was delivered, have been laughed at on account of its somewhat ludicrous form. But its sense is excellent. The corps of officers speaks for the condition of the whole army. Here is repeated what is universally observed in political life. So long as the educated, leading classes maintain their position, the people is serviceable and strong. On the other hand, the decay of the ruling classes of society entails the decay of the whole nation, except it be that a great social

* The Appendix contains the normal constitution of the mobilised army corps and of its column of march, together with the explanation of details.

revolution abolishes the former, and replaces them by others; this may for a time cause a check, but never affords a permanent remedy. In the Turks of the present day, we may perceive what lot is in store for an honourable, proud, and religious people when deprived of the leadership of the upper classes. The best possible troops under bad officers are at most but a very deficient body. The corps of officers must accordingly be chosen from the best classes of the people, who exercise even in ordinary life a natural authority over the masses. Frederick the Great, the founder of the Prussian officer-corps, selected it entirely from the hereditary nobility, which at that time almost exclusively represented the educated part of the nation. When this became altered, the character of the corps of officers became changed. Though the officers are even to-day chosen from the aristocracy of the people, yet this means the aristocracy of education, which has taken the lead in social and political life. An especial value is, and is rightly, laid upon education, because it is the basis of noble and moral qualities. But we ought not to cling exclusively to scientific education, but pay also proper regard to the qualities of the heart and character. It is required of an officer that, in the interest of his service, he should forego personal advantage, lucre, and prosperity. Hence only such fractions of the population as are not, by reason of their vocation, compelled to prefer personal advantage to great and public ends, are fitting persons to recruit the corps of officers. Sons are here, by their fathers' example, educated up to the feeling of duty. Egotism is beyond all doubt the most bitter enemy of the qualities essential to the officer-corps, and every occupation which is calculated to increase the former is an enemy of the latter. It was, therefore, very practical to give the officer-corps the character of a class, each member of which is socially the equal of another, a class having common interests, and at the same time common duties, and of which the whole body is rendered responsible for each individual member. Thus the officer-corps has a certain character, reminding us of the Orders in the heyday of their existence. It ought to be a real chivalry.

An ideal trait must be peculiar to its whole nature, otherwise it is incapable of fulfilling its proper ends. Let us picture to our-

selves in what those consist. In the most trying situation which is possible in life—namely, in the face of death—it is called upon to lead a mass of men, and still preserve its influence over them. To do this, invaluable qualities are demanded, such as cannot, in the case of such a large number as compose the officer-corps, be present in every case, but which may in great measure be gained by education, and especially by continuous intercourse with the best men of the nation. And this is only rendered possible by the institution of a special class.

Influence over the soldiers must be gained in time of peace by a proper application of the superior qualities of intellect and character, in training and leading them. Before all else, this must also include care for the well-being of the soldier. A decay in the officer-corps and its influence arises, so soon as officers begin no longer to trouble themselves about the private soldier and to confine themselves merely to giving orders. When their authority over their troops can only be enforced by noise, it is as a rule but feeble. The worse the discipline in an army is, the more despotic a form it assumes. Besides this influence that has been gained, example is requisite, and this is more the case in time of war than in peace. The officer must not spare his life. Only in order to urge on his troops, he must frequently expose himself more than the ends of battle would otherwise at the moment demand. By thus showing himself unusually fearless and self-sacrificing, he awakens noble impulses in the soldier's breast, for only by these can great deeds be done. To the officer-class there is, accordingly, due of internal necessity, a more favoured position in the state. *Noblesse oblige.* He who is accustomed to regard himself as belonging to a special class will also, in war, consider himself bound to do something special. But he who, on the other hand, always lives in an inferior and subordinate position, will only in few cases feel himself impelled to suddenly distinguish himself. Slaves are always cowards. But the slavery of an inferior state of life is no less depressing than any other. It deprives a man of pride, which is as indispensable to an officer as is his daily bread, to enable him under the trying circumstances of active service to show his authority.

The social advantages which are conceded to his class are a

profitably invested capital. Even the prejudices which the officer sometimes entertains, in his youthful years, owing to more honour being paid to him than to others of his age, bring in good interest on the field of battle to the profit of the Fatherland. His duty is to command and to lead, and he must therefore feel what he is, and be proud of his position; and there is no harm done if he is somewhat more puffed up with a sense of his own importance than would, under other circumstances, be absolutely necessary.

Now, if the officer must further forego the acquisition of a fortune, or even domestic comfort, and risk the future welfare of his family, which is assured the landowner, the merchant, and the tradesman, it appears only right and fair that he should be compensated for foregoing these advantages by outward distinctions. And it is just these latter that most frequently earn for the officer class the envy of others, and yet we must not forget that these are only a just, or even a modest, compensation for great sacrifices. Of no other class is it officially demanded that it shall be at all times ready to sacrifice its life. The illustrious Decken eighty years since expressed himself in very clear language upon the position of the officer-corps in the State.

"Egotism has passed from individuals into whole classes," says he; "one class esteems another only in proportion to the advantages which it can derive from it, or only in so far as it recognizes in the other a similarity of character and an immediate common struggle towards one and the same end. The sovereign in a monarchical state favours the nobility because he can depend upon its immediate support. In a commercial country, the merchant is held in the highest esteem, and, after his own vocation, he considers navigation to be the most honourable pursuit. Personal interest, shaped according to various needs, is the measure of the value the business and dealings of one class have in the eyes of others.

"The literary man loathes war, because the muses take to flight on hearing the din of arms. The statesman trembles when he counts up the enormous expense caused by the military class. The civil bureaucracy is jealous of the power it must surrender into the hands of the military authorities, and often treats the soldiers like citizens who belong to another State. The moralist is vexed at

the gay life the officers lead: the dandy envys him his fine dress and his sword; whilst the countryman cannot pardon the soldier for enlisting his sons and servants. But in case it has happened that anyone has ever been so unfortunate as to incur our displeasure, we are on the whole very much inclined to remark all his failings, even the most insignificant, which before would not have roused our attention, and to quite overlook all his merits. If we have once taken a dislike to a class, every occasion tending to intensify this feeling must be regarded as a fresh tributary by which the brook swells at last into a boundless river. Now, when in consequence of a long peace the memories of past services have become completely obliterated, and there is no immediate prospect of a war, the citizens take more and more note of the grievances which are inseparable from an army, and attempt to convince themselves of the uselessness of this institution, adducing in support of their assertions many specious proofs." The present day, especially in Germany, is favourable in this respect to the officer class. Great and successful wars have enhanced its renown, and have moderated the envy of others. But there will come again periods of a long peace, in which it may again be necessary to remind the people that external favours may, without harm, be extended to the military, and especially to the officer class, and that they may even be profitable. An officer class of inferior social position may consist of excellent, peaceable, and industrious citizens, but it will be poor in bold and courageous soldiers. Without social privileges, the class must of necessity soon sink down to a very modest *niveau*; for in civil life it is property that determines social grades, and our officers are—thank God!—in the majority of cases, as poor as church mice.

The officer should, moreover, preserve his youthful vigour to a comparatively old age. It is his province to stake in war, and upon its uncertain chances, woe and weal, life and reputation. And for this is essential, in addition to military qualities, a light heart, that readily hopes and does not look at the black side of things. But this light-heartedness will be but with difficulty preserved by anyone who has been oppressed by a long life of care. An existence free from care—yet no more than this—should be secured to officers by the State in its own interest. Officers who

eke out a miserable existence in secret, and are always looking forward to the moment when, freed from the burden of splendid misery, they will be enabled to live in some quiet nook on a moderate pension—officers of this description are of no service to the army and their country.

How can such persons be animated by the fresh and courageous impulses indispensable to a leader in battle? The preservation of physical activity must also be considered. It is not a little that is demanded of a man and father of a family of fifty to sixty years of age, when he is required to dash fearlessly in the teeth of the enemy's guns, at the head of his squadrons, and ride furiously over hedge and ditch. Let anyone demand this of one of our sleek merchants, of a comfortable squire, of manufacturers and private gentlemen, of a like age, and we shall find there will be only very few that will not refuse this demand upon them as being an act of madness, quite ill-suited to their years.

A portion of youth's dashing recklessness must be preserved by the officer until the end of his career, and he will only be able to do this if his position guarantees him some freedom from the ordinary pressure of everyday life. An aristocratic trait must pervade his whole nature.

The Fatherland, in securing for its officers an honoured and self-sufficient position, obeys the dictates of shrewdness and self-preservation. More depends upon the energy and excellence of this class than of any other; to wit, the honour and liberty of the whole nation.

Important for all great European armies of the present is, also, the class of Reserve officers, who only leave their civil occupations when war summons them to the standard, or when manœuvres require their co-operation. The name is different in the different armies. The essential point remains the same.

No State is sufficiently wealthy to compose exclusively of officers of the line a corps of such numbers as to suffice, in time of war, for the whole army when increased to twice and thrice its strength by mobilisation. In Germany we should meet with this difficulty, that the barriers of the professions and classes which are suited for supplying the material for our corps of officers would have to be broken through.

Not even the active army proper can be entirely commanded by officers of the Line. The formation of the many new staffs that a state of mobilisation renders necessary, almost exclusively absorbs the real active officers. It is impossible to avoid many companies of the line being in the hands of officers of the Reserve immediately after the first bloody battles. At the end of the war 1870–1871, even lance-sergeants (*vice-feldwebel*), in many cases, took the command of companies. In December 1870 we find a Bavarian infantry division so reduced by severe losses that it only possessed in the front a single captain of the Line.

Involuntarily we ask ourselves what would have ensued had the war dragged on through one or two years more. We are led to the conviction that, given a state of similar circumstances in the future, a moment must come in which only the higher commands will, as a rule, be in the hands of active or regular officers, whilst the lower will have passed into the hands of the officers of the Reserve and the Landwehr.

But, in the course of a great war, it may very well be that the necessity arrives for the formation of new bodies of troops, in order to replace losses or to counterbalance the numbers of the enemy. The supply of line officers will have been long since exhausted before such a crisis is reached. Only the Reserve can possibly supply the leaders. Upon the capacity of this class depends, then, the eventual success, for only he who has good leaders finds also good soldiers.

The importance of this institution cannot, therefore, be called in question. It is necessary, however, that the conviction that this is the case should be yet more widely spread.

It is not everyone who has the inclination and talent for being a professional officer in time of peace. Every capable man belonging to good society should, however, conceive it to be his duty so to prepare himself as to be able, when necessity demands, to enter the army as a substitute when professional officers are wanting. In time of war all the conditions of service are simpler. The duties of the active officer can, with few exceptions, be undertaken by every educated man who is healthy and strong, provided he has only a firm will. And this he will have, if he only estimate the gravity of the situation aright. The attainment of an officer's

commission in the Reserve must not be regarded as an act which must take place *honoris causa*. The practical importance of the step, and the ideal value of it as well, deserve to be especially insisted upon.

Even in time of peace, the officers of the Reserve have important duties to perform. They stand with one foot in the military system, of the material working of which they understand much more than the private soldier, and with the other foot among the people. On this account they are especially capable of extending and keeping alive in wider spheres attachment to, and understanding for, the profession of arms. They can be energetic representatives of all the interests of the army.

Germany possesses, beyond all doubt, the best material for an extensive and efficient body of Reserve officers. It has, moreover, good tradition in its favour. Strictly speaking, everyone in Germany passes through a period of life when he envies a soldier's life. The farmer, the manufacturer, the lawyer, the official, and so on, all of whom, owing to circumstances, have been launched into other careers, endeavour, at all events in the Reserve and Landwehr, to satisfy their old cravings. With a will they throw themselves, from time to time, into the noble handicraft of arms. It is a real blessing for the Fatherland that such is the case. If it is decreed that some day it shall be opposed to several enemies in one gigantic struggle, it will find its safety in this fact, that it will not lack genuine active officers. It will be continually enabled to put fresh troops in the field, whilst its enemies will only be able to drum together masses of men.

It may appear unjust that we do not demand like privileges and provision for the under-officers and the soldiers as for the officer. But there is a material difference here, namely, that they only temporarily belong to the army. Their military profession is not, as in the case of the officer, their sole worldly goods. Besides this, they perform their duties in early years, when care is, as yet, far removed. The hope of gain and a future free from care in civil life beckons to the soldier, after he has discharged his short period of service with the colours. The under-officer counts upon the prospect of gaining a permanent situation through his service in the army, a prospect that otherwise would have been closed to him.

Plentiful provision will also not be thrown away upon the rank and file. The private soldier must not suffer want, and must not, in comparing his lot with that of his equals in civil life, draw comparisons unfavourable to himself. Contentment is no unimportant factor in the internal efficiency of an army. It is sprung of a proper proportion of work and comfort. Spoiled Pretorians will do their duty as badly as overworked and hungry troops. Pride in his rank, pleasure in and attachment to the cause he serves, must also come to the soldier, from the way in which he is maintained and treated.

Before all, he must know that, in case of being wounded or falling sick, he will not be abandoned to distress, and that his relations, whose bread-winner he has been, will be provided for, should he die on service. Thereout there springs a feeling of security, productive of courage and vigour.

In the army, under-officers and soldiers change after short periods. The officer-corps alone forms the nucleus. It hands down traditions. Through its hands passes, year by year, a new class of recruits. The whole nation in arms is subordinated to its influence. The alterations that great thinkers and great eras have wrought in the army can only be passed on to future generations through the medium of the officers. As the officers so the army. More true to-day than when it was spoken is Rüchel's saying, "The spirit animating the officer-corps is the spirit of the army."

SECTION II.

OF THE COMMAND OF THE ARMIES.

1.—*Generalship.*

All that is to be said about the command of the armies and of generalship, might consistently follow a discussion of the evolutions of the army and the battle. But as much of it is intimately connected with what has been already urged touching the officer-corps, its place shall be here.

History gives us a great idea of the importance of generalship. We see the Macedonians victorious over enemies of tenfold their strength, and do not doubt that they would have succumbed, had another than Alexander been at the head of the army. Hannibal taught the Carthaginians for a certain period to vanquish the first military people in the world. Only a Cæsar's genius could triumph at Alesia, Pharsalia, and Alexandria. Frederick withstood the world, even when the trained soldiers, with which he first took the field, had long since lain dead on the battle-fields, or were lying wounded in the hospitals, and he was compelled to take all he could possibly summon round his hard-pressed standards. The French of Rossbach marched victorious through Europe, when led by a Napoleon. Great generals can even surround the arms of subjugated and decaying nations with a fresh halo of glory, as is proved in the instances of Aristomenes, Belisarius, Narses, and Aëtius. Even the decaying Persian power, towards the end of the last century, undertook great wars of conquest, and advanced as far as Delhi, after Nadir Schah had raised himself up to be its ruler.

With the death or retirement of a great general the warlike renown of his country often departed. When Alcibiades no longer led the Athenians, their armies were annihilated. Carthage was doomed after Hannibal had left it without assistance. The hordes of the Mongolian world-devourers were easily overcome when no longer led by Ghenghis Khan and Timurlenk; and the terror of the Turkish arms became extinct with the line of the Great Sultans. When Turenne died, in the middle of a successful campaign, his successors were within an ace of a total defeat, and, as it was, they were only able to save the army that had until then been victorious, by retreating across the Rhine. "Surprise is felt," wrote Frederick the Great, in his history of his times, "that the close of Charles VI.'s reign is found to be so much below its glorious beginning. The cause of this must be sought solely in the death of Prince Eugene. After the death of this great man no one was found to replace him." Still more striking is it to perceive how, in 1813 and 1814, the French were, almost without exception, defeated where Napoleon was not present; but, as a rule, were victorious so soon as the Emperor was again at their head.

After these historical experiences, it is possible to arrive at the conviction that but little depended upon the nature of the army, but that everything depended upon the genius of the general. As a fact, even in these days, the ability of the commander-in-chief may be regarded as the most important condition of victory. In the wars of the future, too, the power of a man of genius will always make itself felt. Yet things have altered in comparison with earlier times. In our day, special qualities are indispensable, in order that the ladder of the military hierarchy may be ascended up to the height where the eminent talents of a strategist first become of value and are perceived. We are right in saying that it is character that makes the general. But strong characters are wont to display themselves in a manner that is more disadvantageous than profitable to their advancement in time of peace. Had it not been for the French Revolution, Bonaparte and Carnot would in all probability have ended as lieutenant-colonels or colonels. And Frederick the Great would, beyond all doubt, had he not been born a prince, have retired as lieutenant,

Adolph Schmidt proves, in an historical parallel, that even the Crown Prince Frederick, had his father had him executed in 1729 after his unsuccessful attempt to escape, would most certainly have been held to have been an obstinate, malicious, "effeminate" or weak-minded good-for-nothing, who never did anything for love of it, had no turn for anything, and was of no use—in short, was in everything the reverse of his wise and pious father.

Great generals could, accordingly, only rise up independently of the circumstances which surrounded them, so long as the armies were more or less free levies of the people, and original natural tendencies prevailed in all appertaining to them. Under such circumstances, energy and personal influence find the widest sphere of action. It disappears in a settled and orderly state of civilisation. Nadir Schah would, in our Germany of the present day, be undergoing penal servitude, for he began his career as a brigand-captain.

The excellence of the troops now stands in a more intimate relation to the excellence of their generals than was the case in former days. Only where a healthy state of things prevails in an army, are good generals to be found at the head of it. The way of these latter is barred so soon as favouritism, clique, and partisanship enter in, or subservience is more highly esteemed than sincerity and force of conviction.

The legend of the brave armies which were only defeated because they possessed incompetent leaders, is capable in these days of being greatly restricted. How is it possible for bad generals to train good troops? or how, on the other hand, should those men, who have known how to drill and form an efficient army in time of peace, fail in time of war? Genius makes an exception, in so far that it knows how to compass great achievements with means that are insufficient for other mortals. But, as a rule, good armies and good generalship may be regarded as inseparables.

We must accordingly not merely examine what qualities a man needs in these days in order to achieve great things as a general, but also what conditions must be fulfilled in an army in order to render it possible for great soldiers to rise up.

The general, in hours of danger, must sway the masses to perform his will. He must, therefore, be born more to rule men than to please them. Those who have been born to rule are also great soldiers; and it is easy to conceive that the greatest military leaders must be looked for on thrones.

Sway over others is before all else founded upon the will. It is seen in the case of boys at play, how that the one who knows how to give the most definite expression to his will leads the whole band. Some of his fellows give in to him for convenience sake, others out of a want of confidence in their own strength. In later life the same thing is repeated. A demand made with determination seldom meets with opposition. Such a claim has something impressive in it, and the great masses of mankind must be impressed if they are to obey. They thereby attain a sense of personal security. This enhances their courage and capacity.

It is impossible to conceive of a strong will apart from self-confidence. This latter again presupposes a certain onesidedness. And this advantages the soldier. Highly intellectual natures readily adopt a universal theory, which is prejudicial to successes within the narrow sphere of active service. They penetrate too deeply, as a rule, into the true nature of things, and discern more sharply than others risks and dangers. Then follows doubt, that destroyer of self-confidence, and that arch-foe of all success. In the many-headed council of war, held on the 5th October 1806 in the Prussian head-quarters at Erfurt, Scharnhorst delivered that memorable saying, that in war it matters not so much what is done, as that what is done is done with proper unity and strength. His warning was not attended to, and, although there was there no lack of shrewd heads, only paltry measures were adopted. Clever men usually look too far afield for the *best* method, and fail to see that the chief matter of all is to adopt betimes a *practical* method. How intelligence, which in time of peace enjoys the greatest consideration, decreases in value in times of war, when opposed to will, is seen in the result of almost every council of war.* Certain it is that where experienced and shrewd men meet

* In time of peace, when the will and courage are subjected to the responsibility of fewer trials than in time of war, the worth of an officer is, as a rule, exclusively determined by his intelligence, whilst this last guarantees success in war to a far

together, the highest order of intelligence is collected. Yet Frederick was right in preremptorily forbidding his generals to hold a council of war. That clever discerner of men knew full well that the only result ever gained thereby is a majority for the "timid party." The intelligence concentrated in a council of war is wont to be productive of no other advantage but this—that there all the weak points of an army are carefully brought out, and proofs adduced to show how dangerous all action in the field is. By this, the will of the general becomes only still more disquieted and weakened, and a "council of war" has become an ominous word, the sound of which, as a rule, is equivalent to capitulation or defeat. It is always born of the presentiment of approaching disaster, and of the wish of the commander-in-chief to share the responsibility with others. It is not clever men that are so indispensable, as men of strong will and full of self-confidence.

A strong will is, indeed, a proud possession, but yet not a very agreeable one. It entails upon its possessor an unusual amount of responsibility.

The courage of responsibility, and the wish to bear it, are necessary to a general, but are rare gifts. Very many men dash thoughtlessly into the gravest perils when another has to bear the responsibility for them; but they are irresolute when they have to undertake it themselves. To draw this responsibility upon their shoulders may, in an unfortunate case, be equivalent to loading themselves with blame. These great warriors behave like children who, when they have done mischief, are the first to exclaim, "That is your doing!" When their eye scans the field of corpses, there is no consciousness that is dearer to their hearts than this: "It is not my fault." It is one of the bitter secrets of human nature, that it is more afraid of the fault than of the consequences of a misfortune. The poet who brought the accusation against the heavenly powers—

Ihr lasst den Armen schuldig werden,
Dann überlasst Ihr ihn der Pein—

well discerned the secrets of our hearts. The courage of respon-

less degree. Hence the frequent disappointments in the persons of generals who have in peace time been prematurely promised a great future, and upon whom sure hopes have been unwarrantably based.

sibility is, all the same, a glorious and divine gift which alone enables a high-placed general to achieve great results; for, if his experience and intelligence are not sufficient, he finds shrewd helpers to supply his deficiency.

The courage of responsibility is born of a certain magnanimity which must be inherent in the general, and which ennobles his whole nature. It is a feeling of superiority that raises him above the common herd, *without making him presumptuous.* It may be innate, but may be also generated in the school of life. Severe trials purify a well-framed character. They teach it to think little of earthly weal and woe, to gaze dauntlessly into the face of possibility, to suffer fresh disaster; it teaches men to bear the blame of guilt when innocent, and to fall a victim to the damning sentence of the crowd, and the displeasure and hatred of princes. A versatile and thorough knowledge may produce this nobleness of soul. It certainly makes us perceive how shortsighted at best human perspicuity is; but, on the other hand, it teaches that war presents us with no enigmas incapable of solution, but that the employment of the natural powers of the understanding is all that is needed. Nowhere, in the whole system of warfare, is there any dark corner which the magician's art can alone enlighten. Knowledge enhances security, whilst ignorance is the beginning of a moral dissolution. The feeling that all that is required is to be able to use properly the materials given, and then, at most, to fight with misfortune, steels self-confidence. It tells us, "What others can do you can do also," and increases the pleasure of ruling and leading.

Now whether this nobleness of soul be a natural talent, or whether it be acquired by education or in the school of experience, it is that quality that soldiers most highly esteem in their general. It is a guarantee against the unwelcome effects upon them of danger and disaster. It gives that calm tranquillity upon which excitement breaks as upon a rock in the sea; it produces an even balance of mind, from which a comforting effect, like an electric current, spreads over the whole army.

"A strong mind is not such as alone is capable of strong emotions, but such as preserves its equilibrium when worked upon by strong emotions, so that, in spite of all storms in the breast, the

understanding and conviction keep their place, like the needle of the compass on the tempest-tossed ship."

Courage of responsibility and nobleness of temperament are more necessary to the generals of our times than they ever were. The reason for this lies in the increasing dimensions of the armies, and in their constant independence of each other on the battle-field. The uncertainty of subordinate commanders must, of necessity, be increased, because it is more and more difficult for them, from their point of view, to oversee the state of the whole operations. On the other side, the possibility of the whole being controlled from the central command is proportionately diminished. The commander-in-chief thus comes more frequently into the position of being obliged to accept the responsibility for events, the course of which he is unable to control. Relying on uncertain news, or short telegraphic reports, he must, without being personally able to discern the position of affairs on the spot, command operations to be attempted which, perhaps, after much blood has been shed, fail in their object. He then is made responsible, and upon him the reproaches are showered

In the Franco-German war, such orders were despatched from Versailles to Lisaine, to the Loire and the North. They were successful, but chance circumstances might have caused them to end in disaster. The general must be aware that, even whilst devoting the most careful consideration to the matter, he is playing a dangerous game, upon which he stakes his reputation, his safety and, it may be, his life as well. The French general who empowered his subordinates, in all doubtful cases where they could not ask for orders to advance, to presuppose them, in order to be quit of personal responsibility, was well acquainted with war and with human nature.

Until the modern weapons of precision were invented, battle-fields were about as large as a brigade manœuvring-ground. Even those who visit the battle-fields of 1864 are astonished to find how short all the distances are, and how close together the several objects which are detailed in the accounts lie. From friend to foe at Missunde, Oberselk, and Oeversee, it looks, according to our notions, only a stone's throw. The visitor to Waterloo and Hochkirch will be still more impressed by this. The dimensions

of modern battles were unknown in those days. Thus the possibility of unexpected and colliding influences on the part of subordinates was more limited. An army formerly advanced, before the battle, to within a distance of the enemy that, in these days, would be equivalent to standing under hot fire. The general, before making his decision and completing his arrangements, could himself see how matters stood. Frederick severely reproached himself for not having previously surveyed, in person, all the ground over which his attack led him at Kolin. Whoever would do that in the wars of modern times would always be behindhand with his arrangements. Frederick and Napoleon followed the movements of all their troops until the moment arrived for them to engage in the battle. But the great King was, as a rule, only at the head of 30,000 to 50,000 men. Napoleon commanded vast hosts, but they were closely packed together in dense columns.

In these days it is seldom possible to find a point of view whence the whole battle-field could be surveyed. At all events, the field is too extensive for it to be possible to make personal dispositions of the troops forming the wings. The orders carried by a fast orderly often take so much time in transit, that the circumstances under which they were issued have, in the meantime, completely changed. Intelligence and messages from distant parts of the battle-field arrive in a confused state, and are contradictory. The general, accordingly, must act on hearsary, and this requires more courage of responsibility than was required fifty or a hundred years ago. Only a strong self-consciousness will be able to acquit itself well.

The truest friend and helper of the will is ambition. A vigorous ambition is indispensable to a general. Men of very strong will and good qualities remain sometimes unknown, because they lack the inner impulse to shine forth, to be the first, and to "outstrip others." Some have been only induced, almost forced, by chance events to unfold their talents. Cromwell and Washington are examples of these. But ambition has wrongly become discredited, because it is so frequently confused with an impulse that strives after external advantage, and is thus falsely styled ambition. Genuine ambition is an expression of the natural desire, innate in every man, to prolong his existence beyond the

pale of death, to snatch an immortal part of his existence from annihilation. Without this active helper, the will, even though it assert itself energetically at first, is readily exposed to the danger of gradual extinction. It is easy to understand that men of talent, after showing at first great promise, disappear afterwards in the gloom of obscurity. We must not, in such cases, always think of their talents as exhausted. Either a faulty philosophy taught them in process of time to scorn glory and greatness, or they allow their yearning after fresh laurels to be destroyed by the envy of their companions-in-arms; or, it may be, by the want of incitement engendered of easy successes. But all this is prevented by an intense ambition which keeps the will in motion like the flywheel of a machine. Great deeds are impossible without ambition. It is nearest allied to love of glory, which unceasingly bids us rescue our name from historical oblivion, and thus to accomplish extraordinary achievements. Love of glory was Frederick's mainspring when he marched out to conquer Silesia, and to open a new line of development to his Fatherland.

The general undergoes his hardest trials in the days of disaster. He must possess the special gift of being able to bear disappointments and the buffetings of fate, of whatever sort they may be. There are characters, vigorous in other respects, which lose their tranquillity, their presence of mind, and their patience when their hopes have been dashed to the ground. We characterise that quality which is especially successful in combating the impression of misfortune, as "greatness of soul," and add this quality to those representing our ideal of a general.

Thus it follows that a number of great human qualities are identical with great military qualities. Among the other gifts that are indispensable to a general, it appears only necessary for us to bring into prominence those about which something special remains to be said. For we must take it at the outset to be self-understood that he cannot exist without circumspection, courage, boldness, enterprise, foresight, discernment, perseverance, hope, &c.; for every good soldier must possess these qualities.

A thorough knowledge of the secrets of human nature is also very essential to a general. An army is a very sensitive body; it is no dead weapon, a mass of chessmen to be moved back-

wards and forwards according to a preconcerted arrangement, until the enemy is check-mated. An army is subject to numerous psychological influences, and its value varies according to its general feeling. Disaster depresses its courage and its confidence; any advantage, though trivial in itself, animates its hopes and strengthens its discipline. The same troops are not to be recognised at different times, so differently do they comport themselves. Influences very keenly felt at one time, at another pass by without leaving any trace of themselves upon the army. How often has it not been said that orders and counter-orders, forward marches and counter-marches, without any apparent object in view, or even night-movements, are sure to disorganise the best army in the world. Now an army has seldom been led backwards and forwards, marched during the night, halted, ordered and changed about, more often than was the army corps of General v. Werder, from the 1st to the 10th January 1871, and yet there was no trace of disorganisation! That internal appreciation of the qualities of their commander on the part of the soldiers was here tried and not found wanting. They discovered that they were here in good hands, in spite of all apparent insecurity, and that there was no reason to lose confidence. It does not signify so much what demands are made, as how and by whom they are made. All rules that could be laid down on this subject are futile. The general must understand how to look into the hearts of his soldiers, in order to be able to perceive rightly, at each moment, what he can at the moment require of them. He must be a discerner of men. Scharnhorst long since bewailed that the psychological side of the science of warfare is so little known, and "that the chief use of history—the difficult and yet so profitable knowledge of the human heart, that is attained by nothing more readily than by the investigation of events themselves a consequence of great and far-seeing plans—is almost totally lost." The modern history of war, even more than the old, shakes itself free from a discussion of psychological elements. It is content, in an abrupt style, which reminds us of the forms of antique buildings, to register facts or to build up critical conclusions, without describing the colours in which the picture exposed to our view is depicted. Thus it comes to pass that many soldiers, who are excellent in other

respects, go wrong in this point; that either, judging by their own unwearying energy, they overtax their troops, or, by putting too low an estimate upon the power of their influence, demand less of their soldiers than these are capable of performing. Conventional doctrines touching the sparing of troops in war, lead at last to bad habits, which, when once ingrafted into them, become a power like the "spirit of the Prussian army" of 1806, which did not permit of living on the country or of lying down in the face of the enemy's fire.*

As every people and every army must be differently employed and led, according to its peculiarities and organisation, so is the general in each separate case permanently in need of pre-eminently special qualities. Though the character of a general be always of an almost similar stamp, yet in one case one side, and in another the other side, of that character must be specially cultivated. The ardour that fires the Southerner to martial deeds is incomprehensible to the soldier from the North. The calm firmness that befits the latter, leaves perhaps the former cold. It is knowing his people and his army that teaches the general to find the right way. His knowledge of men allows him at once to discover the proper channels through which to make his will felt, and to assign to his subordinate commanders the several duties most suited to their energies and inclinations. By this means much is attained. Fully one half of all the conditions of success consists in finding the proper persons to carry out schemes. Deficient qualities in a commander-in-chief may be here counterbalanced by adroitness, and the qualities he does possess doubled in effect.

To the less known but yet indispensable qualities of a commander belongs imagination, the step-child of our modern method of education. It flashes before the eyes of the young man pictures of glory and greatness, and fires him to do the like. Yet that is not its highest sphere of usefulness. A too lively imagination may

* We must not, in this place, fail to point out a danger lying in "Kriegspiel," and in the excursions of the General Staff. In these exercises, which in other respects we rightly value as being conducive to efficiency, as a rule only normal achievements are presupposed, in order that the parties may fight under equal conditions. By this means we become accustomed to regard average performances as being those that are alone possible. But it is precisely the extraordinary performances to which, in war, great successes—nay, even success altogether—must be attributed.

even lead to an over-estimate of one's personal strength and to false steps. But, for other purposes, it is most essential to a general. He must clearly present to his mind, at each moment during long and intricate marches and operations, how his own troops, and possibly those of the enemy, are stationed. And more than this, he must divine how they will be situated at the expiration of two or three days, or even more. Jomini lauds this quality in Napoleon, and attributes to it the rapidity and ease of all his arrangements. The positions which his corps, divisions, and brigades occupied at any given moment were always present to his mind. He forgot nothing, therefore, and left out of sight no resource of which he could avail himself for the objects he had in view; he thought of things which everyone else would have forgotten, and was rich in inspirations. That is, in the highest degree, the work of the imagination. It is of assistance, also, in the study of military history, which. should, owing to its attractive form, be more than ordinarily profitable. It paints in detail small events, and allows of experiences being gained which are, perhaps, only carelessly hinted at in historical representations. An ill-controlled imagination, which has not been purified by a careful study of history, is most certainly of that precarious character that depicts fantastic dangers. But in anxious minds the same apprehensions are frequently due to a sheer want of imagination, and thence spring a thousand doubts, bringing wrong orders in their train. The enemy is supposed in a place where, if his last position and the time that has since elapsed were taken into consideration, he could not possibly be expected to be. Useless precautions are taken where other divisions of the army, if the situation were only properly grasped, ought to have adopted them. The notorious splitting up of the forces is also, perhaps, engendered of a deficient power of conception. Imagination simplifies the apprehension of the commands and dispositions of superiors; it aids us materially in making ourselves acquainted with their ground, because it presents the actual map clearly to our mind, and the places in question are the quicker recognised. It aids us more than we think in turning theory into practice.

If there were always time to think in war, one might perhaps be able to dispense with imagination, and measure all that was neces-

sary with a compass or the map. But in the heat and excitement of battle we lack the leisure and the quiet requisite for solving such geometrical problems. The force of conception must know how to conjure up a picture that shall serve us as a basis for our future operations; and in order that no distortions and dislocations take place in it, the commander must not fail to exercise his fancy and to keep it working. As a rule, the importance to a general of a good memory is under-estimated.

Napoleon compared a man full of genius, but without a memory, to a fine house without furniture, and to a stronghold without a garrison. War is a perpetual struggle with embarrassments which the enemy either causes us or attempts to cause us. Our object, therefore, must be to discover means to constantly help ourselves out of every strait, and, in this our endeavour, the recollection of similar situations in former times, and even of instances recorded in military history, is of extraordinary assistance. Even the most inventive brain would break down, did not a good memory afford it effectual aid. It enables us to first turn our experience to good account. Moreover, war demands great care in numerous details, trivial in themselves, but upon which the weal and woe of the troops depends. In a camp there are never ending duties of the most varied kind to perform, from the correction of a misguided soldier, up to questions of life and death for hundreds. Everything must be practically and rapidly done. And, therefore, the commander must have an excellent memory, Memory is, moreover, not a uniform faculty. Its objects are names, persons, facts, numbers, &c. After an historical and geographical memory, that for persons appears to be the most useful to a general, for it enables him to bring the right persons into the right places.

One of the most important talents of a general we may call that of a "creative mind"; because to call it "gift of inventiveness" appears to us to be too shallow. There are only very few men in existence who have original thoughts. Ben Akiba's saying, "Nothing new under the sun!" is as true of the world of ideas as of that of phenomena. Most people in these days only make use of what they have inherited or acquired. Situations in war are of such a nature that they appear similar; but they are never quite alike. The number of causes and forces is too great to admit of

perfect congruity. The general cannot, accordingly, employ the exact means that have been once previously adopted. At any rate there will be something entirely new in the manner of their adoption. A spice of invention is always necessary, and here, then, comes in that ever regenerating power, the creative mind, as well as the inclination to employ it.

This stimulates us and enables us to deviate from the beaten track more freely. By this alone the general gains a great superiority over his opponent who lacks this gift. He will continually *surprise* him.

Now, if will, ambition, and a love of fame, are blended with creative powers, the result is an irresistible thirst for exploits, and it is rightly asserted, that of two generals who are in other respects equal, the most energetic must gain the day. This irresistible activity was the secret of the fame of Alexander, who recently has been compared by a writer to a man travelling in arms, who was always full of impatience for fear lest he might be stopped.

The mention of this irresistible energy leads us yet further. It makes great claims upon our energies, not only upon our intellectual, but upon our physical ones as well. Good health and a vigorous constitution are invaluable to a general. There have, it is true, been famous generals who were sickly, but that is only a proof of the extraordinary vitality of their spirit, and that they would have been able to achieve much more had not a part of their energy been devoted to the suppression of their bodily ailments. Torstenson commanded his army from a palanquin, and conducted brilliant campaigns. But we are also aware that disease at last overcame him, and that he was obliged, when little over forty years of age, to leave his army and his victories in the lurch, in order to retire to a sick-bed on his estates. Gout lost Sweden one great general and a series of successful campaigns.

Nature demands her due. In a sick body, the spirit cannot possibly permanently remain fresh and clear. It is turned aside by the selfish body from the great things to which it should entirely belong.

Doubly, yea trebly, indispensable to our modern commanders is

good health, especially now-a-days, when, with the exception of such as are promoted by reason of their being high-born, they are allowed to become old before they are called upon to act in an influential position. Their duties, especially in the German army, are very exacting; and only a very tough constitution can hold out so long as it takes to ascend to the highest steps of the military ladder.

That a prosperous material position facilitates and does not impede an aspiring commander in his advancement, follows from what has already been said about officers generally. Such a position gives self-confidence and a feeling of independence, and maintains, where it is made prudent use of, physical freshness and health. Riches are only dangerous to men of moderate ability.

Bravery, too, deserves a few words of explanation, although it be naturally presupposed in the person of every soldier. A general needs a special kind of bravery. It is now-a-days said, and with a certain show of right, that all the world is brave, and that this quality is nothing so out of the way that great expectations should be based upon it. "But to assert that everybody is brave, is equivalent to declaring that everybody is a painter, a musician, or a mathematician."

The gods and heroes of antiquity had not bad consciences when they fled in battle before a stronger than they. And they were not, on this account, on any occasion excluded from the Olympian banquet. Our modern conception of courage, according to which the warrior is bound to defy even danger to which he thinks he must succumb, is deeply rooted in the ethics of Christianity and in our ideas of self-denial and self-sacrifice, which require of us to esteem our own life as nothing, when duty calls. In this sense the soldier who has never before set foot on a ship swears to be faithful on water as on land, although he is fully conscious of his helplessness on that element. The high idea of faithfulness to duty, which is implanted in us by training, induces at last even the timid man to show himself brave and to suppress his fear of death and danger. The numerous instances of like self-control that he sees all around him, make him enthusiastic in spite of himself. The fear of being despised by his companions in arms as being a miserable coward, is at last greater than his fear of death.

But it is not this kind of bravery, acquired by training, that can profit the general. He requires that innate courage which is a rare quality of great men. It serves its possessor without his being conscious of it.

Sense of honour and vanity keep most men firm in the face of peril, and externally, at all events, there will scarcely be any difference between them and those, in the case of whom courage springs from a grand and noble heart. But, such are secretly busied with themselves, with their courage, and with their behaviour, and a great part of their moral courage is absorbed by their own personal affairs. They are less clear than ordinary, the beams of their genius fall in extraordinarily thick rays, and perhaps to their own astonishment they do not find themselves equal to the task imposed upon them. Innate courage does not need an artificial current in order to maintain itself; to it contempt of death is something so natural that it does not diminish those other intellectual and moral qualities, but rather renders them all the more capable of higher achievements, as the excitement of the moment only increases the internal pressure that nerves the energies.

And so we admire, in illustrious soldiers, that they always become more clear-sighted and inventive in the moments of the greatest danger, when all others about them are working mechanically, as it were, and with dulled senses. Only such a courage as is incapable of understanding how it is possible not to have courage singles out the true soldier among his fellows. It is such courage as Shakespeare attributes to Cæsar when he puts into his mouth the following words:—

> Of all the wonders that I yet have heard,
> It seems to me most strange that men should fear;
> Seeing that death, a necessary end,
> Will come, when it will come.

From the great number of conditions, each and all difficult to fulfil, it follows that perfect generals are a rarity. This has never been gainsayed. Frederick described the perfect general as "an *être de raison*, a platonic republic, the *centrum gravitatis* of its philosophers, the stone of wisdom of its chymists, a work of creation that merits our greatest admiration." In Tamerlain's

Institutes, nobility of birth combined with that of the soul, intelligence, daring and boldness, bravery and shrewdness, determination and discernment, staunchness and deep deliberation, are demanded. When Onosander only required of his general that he should be abstemious, sober, saving, industrious, of a clear understanding, high-minded, and of middle-age, eloquent, a father of a family, and, if possible, of good descent, he had before his eyes an excellent average general, but not an Alexander or a Cæsar, a Frederick or a Napoleon.

It is difficult to find the mean among all these various conflicting qualities. Such were a gift that only nature, in the highest of good humour, would bless us with.

Now it would seem as though these great generals, in whom so much excellence is combined, must appear as the best of mankind, and take our hearts at once by storm. But neither of Frederick, nor yet of Napoleon, could this be asserted by those who came into personal contact with either. As to Frederick, let anyone who will read Kattenborn's letters,* in order to convince himself that he was a difficult person to get on with. The ordinary explanation, that where there is much light there must also be much shadow, cannot satisfy us in this regard. More exact investigation will show us that the general (and in these modern times this is more true than ever it was) needs certain qualities which are neither grand, humanly speaking, nor such as would be pardoned in ordinary mortals, unless they made up for them by other grand traits of character.

Strength of will can seldom make itself felt without austerity. In the wars of the present and the future, immediately before and after the crowning victory, such great masses of men are huddled together that, even owing to this alone, abundance of distress and misery must be caused. And then, again, the battle-fields upon which hundreds of thousands have fought! They are scenes of every form of human misery. No theoretical conviction that all that we see is necessary and unavoidable can help us over the impression which the aspect of suffering makes upon us. It frequently happens that those are most melted at the sight who

* Letters of an old Prussian officer, describing certain traits of Frederick's character. Hohenzollern, 1790.

before, owing to a secret feeling of weakness, have shown themselves most hard-hearted, and who, to judge by their language, waded knee-deep in blood.

Here also it is only special qualities that protect. It is that severity which appears to be closely allied to the feeling of sovereignty that must be inherent in the general. We often speak of the contempt for mankind that the great generals have. But this needs explanation. We mean by it a feeling of indifference to the fate of individuals, which is only displayed where great aims are to be attained. In private life both Frederick and Napoleon had their soft moments.

But the great ends to be attained are not always clear to the masses. They vanish from their minds immediately they are engrossed by their own personal affairs. And then it is that called-for severity of the general appears to them to be nothing but coldness of heart, and that is repulsive to their feelings. The commander who, taken by compassion, shows his pity for the wounded, or possibly allows himself to be detained by compassion at the scenes of misery, runs the risk of allowing the most valuable moments for action to pass by, without taking advantage of them. And yet we start back in repugnance from the man who only lets his eye pass over the decimated and exhausted battalions, in order to enable him to calculate what he can still demand of them.

The inexorability, and that seemingly hideous unfeelingness, belong to the necessary attributes of him who will achieve great things. In the case of the general there is only one crime for which history never pardons him, and that is—defeat. A strong character will ever bear this before his eyes. But the less impression the displeasure of his surroundings makes upon him, the more severe does he appear.

Not merely human, but intellectual, imperfections also strike us in the generals of the first ranks. Shakespeare's words about fearlessness, hint at a *tendency to fatalism*. This was peculiar to most heroes, and appears to betray a narrowness of soul, but is in their case perfectly explicable. Experience teaches them to appreciate the power that lies in the co-operation of small causes which a man can neither foresee nor control; hence the belief in a fate that, in each individual case, declares either for victory or

defeat. In contradiction external to it, is the fact that all heroes, from Alexander to Napoleon, were filled with a belief in their mission, which gave them, in the most difficult situations, a sense of security that could never be shaken. But, strictly speaking, there is contained therein the conviction that fortune, in the long run, only remains constant to the able man, and that the chance which rules divine freedom—"*Sa sacré Majesté le hazard*," as Frederick called it—declares quite as often for us as against us. Not a belief in a supernatural election that has declared for them, but a belief in their own excellence it is that, in the case of great soldiers, is expressed as being a so-called belief in their mission.

This severity we can accordingly learn to comprehend and to pardon, and acknowledge the imperfections of character to be something different. But still worse do the following qualities of a hero's character look, and none the less are they demanded of him in these modern times.

Even an Alexander or a Cæsar, if he entered our army to-day, would be compelled to pass through all the intermediate grades from second lieutenant up to commander-in-chief, before being in a position to turn to account his inborn strategical talents.

On the broad path of life there are many rocks to be rounded, both such as life itself, as well as life's duties, place in our way. On these open and magnanimous natures are easily wrecked. Good-nature and conviviality have often been disastrous to persons with empty purses. Faithfulness and devotion have lured many to the fate of a superior or a friend. Excellent officers have had to forego their career, because they could not help feeling sympathy for subordinates who had been unjustly treated, and thus involved themselves in their fall.

In order to escape these perils it is necessary to refrain with consciousness, and to shut oneself off from the mass of one's colleagues. We thus are compelled to perceive the usefulness of a quality that, when treating of the corps of officers generally, we were obliged to reject as being the most dangerous of all—namely, egotism. But it is impossible to escape from it; for it is a fact that no one has ever accomplished anything great in the world without a certain amount of egotism. Yet here we must draw an important difference between the ordinary mortal and

those few God-favoured natures who have been predestined to great deeds. In the case of the former, egotism is nothing more nor less than a predilection for the miserable "I"; in these latter, on the other hand, egotism is a conscious husbanding of strength in anticipation of coming opportunities, when it shall be displayed all the less reservedly for the benefit of the world. It must not be previously split up in order to attain lesser objects. A certain apathy in the face of all the trivial daily excitements of the world helps great natures most to preserve themselves from premature exhaustion. But this quality is not an amiable one. On this account the great heroes of history, or at all events those of modern times, were but seldom popular among their playmates of their youth. They were always accused of coldness and calculation.

It cannot be denied that cool reserve, whether it be conscious or more instinctive reserve, gives the character in process of time a trait of genuine selfishness. Hence it possibly comes to pass that in great generals and statesmen we so frequently meet with the ugly greed of filthy lucre, and that, whilst the mob shouts applause at its idols, and attributes to them all good qualities besides their great ones, the more initiated shrug their shoulders in pity at this credulous harmlessness. Strictly speaking, there is at work here only that selfsame quality that was the earnest of their future greatness. Perfectly unselfish natures are sure to fall a prey to some misadventure on their long journey up to field-marshal. We wish, as we have already said, to have very many such for comrades; it can after all only be single individuals that can mount the highest step.

There have, it is true, been exceptions—grand men, who never spared themselves, and yet were never exhausted—but they are a rarity even among great men.

Amongst commanders of the first rank, enthusiasm for their historical aims will always be identical with their love for the glory of their own name; so much so that both are inseparable. This gives an appearance of selfishness, which King Frederick so proudly characterised, in writing to his minister Podewils, shortly before the crowning battle of Hohenfriedberg: "My pride is that I have attributed more than any other to the greatness of my

house, and have played a great rôle among the crowned heads of Europe. *To keep myself in it is also a duty I owe myself, and one that I will fulfil at the risk of my happiness and my life. I have no other choice: I will assert my power, or it may perish, and the Prussian name be buried with me!*" Without Frederick's greatness no Prussian greatness!—thus thought the hero-king, and in our admiration of the feeling that animated him in writing these words, we pronounce absolution to all heroes for their noble egotism.

Historical investigation teaches us that famous soldiers were in nowise only distinguished for popularity begotten of fine human qualities, but that sundry other traits of character, objectionable in ordinary life, were essential to them; and thus it follows that no attention must be paid to these where the advancement of young gifted men in the army is concerned.

The principle that no one is irreplaceable, and that the army still continues, even when the best have left it, is certainly an excellent one, but it must not induce us to let the able man drop merely because he has a number of unpleasant qualities. The French Colonel Desprels proved two years since, in a lively historical treatise, that in the soul of the great heroes of the past there are to be found, almost without exception, the germs of harshness, mistrust, jealousy, imperiousness, selfishness, restlessness, and the like, and that, compared by the light of the ordinary peace-standard of the present day, they would have little prospect of belonging to the elect. The inclination to promote those of agreeable manners in their stead readily spreads. Indulgence in respect of all such traits of character as do not prejudice its efficiency is accordingly essential for an army that will be well led. It is a fact that in late years the most famous generals have arisen from the number of uncouth subordinates and abrupt and reserved comrades.

There are certain human virtues which we cannot afford to dispense with in the social position of the officer-corps and its body; but, so far as is possible, tolerance must also be used in favour of an able man who compensates for personal defects by great exploits.

There is no other way than this to rapidly raise up great men

from low grades, without the military system taking harm. An intentional search after generals has only resulted in the choice of Macks and Massenbachs, and it were good luck if only a Rüchel could be discovered in this way. Much safer it is to leave the roads open to strong characters, but to leave them to their own devices on these roads.

Many of the rocks of a military career are at once avoided by those who are born in high places. Princes of the blood royal avoid difficulties which shipwreck an officer of humbler origin. The disfavour of superiors, the jealousy of comrades, petty conflicts with the conditions of civil life, and the difficulty of being known to persons of influence, have ended many a promising career. Noble parentage helps to overcome all these difficulties; it is an invaluable christening present for an ambitious man of genius. Such persons become early accustomed to rule others, and to see life on a grander scale, and they more readily take responsibility upon their shoulders. Promotion brings a prince's son in youthful years into the high offices that otherwise only old men attain to, and the duties of which, all the same, demand youthful vigour. No wonder that, in modern times, royal lineage has furnished the largest proportion of famous soldiers. Gustavus Adolphus, Bernhard von Weimar, Frederick William, the victor of Fehrbellin, Condé, Turenne, Eugene, Charles XII., and Frederick, all of whom were already seated on thrones, or were near to them. Only the commanders-in-chief of the first French republic arose for the most part from amidst the darkness of humble origin. Napoleon was a scion of a Corsican Patrician family. It lies in the nature of the case, that the great responsibility which a command entails can, in these days, now that people and army are one, be best undertaken by the Sovereign himself. On this account that nation will be most secure whose rulers are also its military commanders, and whose royal house knows how to foster and keep alive the inclination for and the vocation of the arduous duties of a commander.

2.—*Head-quarters and Military Authorities.*

"The constitution of the head-quarters of an army is of an importance not always sufficiently recognised. There are military

leaders, who do not need advisers, and who consider and determine everything themselves; leaving it to their colleagues to execute. But these are stars of the first magnitude, such as are not met with in every century.

"In the majority of cases the leader of an army will not wish to be left without counsel. This latter may be the result of the combined consideration of a smaller or larger number of men, whose education and experience pre-eminently qualifies them to arrive at a correct judgment. But this council may only pronounce one single opinion. Its military and hierarchical organisation must tend towards subordination, even a subordination of thoughts. Its single opinion alone may be submitted to the Commander-in-Chief, reserving his own examination of it, and then only by a person specially authorised to do so; and this latter should be chosen by the Commander-in-Chief, not according to precedence, but out of considerations of personal confidence. Even if what has been advised is not in every case absolutely the best course to adopt, it may, provided that the matter has been properly and consistently dealt with, lead to satisfactory results. The Commander-in-Chief's merit is infinitely greater than that of the counsellor, in that he has taken upon himself the whole responsibility for carrying this opinion into execution."

"But, on the other hand, if a general be surrounded with a number of men, each independent of the other—and the more distinguished and the cleverer they are, the worse the case is—and listen sometimes to the advice of the one, and at other times to that of another, if he carry one measure, practical in itself up to a certain point, and deal with another still more practical in another way, and then weigh the well-founded objections of a third, and remedies proposed by a fourth, we are prepared to wager a hundred to one that in spite of all these, it may be, well-meant measures, he will lose his campaign.

"There are in every head-quarters a number of persons who know how to raise all manner of objections, whatever operations be proposed. As soon as the first complication takes place they prove conclusively that they have foreseen all that would happen. They are always in the right, because they do not themselves care to propose anything definite, and still less to carry

it out, and thus they can never be refuted by results. These negative gentlemen are the ruin of commanders of an army.

"But the most unfortunate of all is the general who is controlled, and who has to give daily and hourly information to this controlling power, as to what his schemes, plans, and intentions are; a commissioner from the central authorities at head-quarters, or at all events a telegraph wire at his back, these are the ruin of all independence, of all prompt action, and of every bold venture, without which war cannot possibly be waged."*

This warning has special reference to the Austrian head-quarters in the year 1859.

It is, however, not necessary for us to look to foreign military history, in order to study the unhappy constitution of a head-quarters. Our own furnishes us unfortunately with a perfect instance. In the year 1806 there were head-quarters at the head of our army, the character of which was such as to render it almost impossible that an army could be well led. Clausewitz speaks jokingly of a Congress commissioned to lead the army. And very like one it certainly was. The Duke of Brunswick properly commanded the whole forces. But the command of a portion of the forces, the so-called main army, was also entrusted to him.† Prince Hohenlohe, at the head of another great division, was in part co-ordinated, and in part subordinated to him. His position as General was almost as high as that of the Duke; but, in the army, he was more highly esteemed. He conceived himself bound, for the good of the country, to play an independent rôle, and to attract much influence to himself. His quarter-master Massenbach encouraged him in this belief. Rüchel's case was similar. For both of these men two separate armies must be organised, in order that their supposed pretensions should be satisfied. But the King was also in the chief

* *The Italian Campaign of 1859*, edited by the Historical Division of the General Staff of the Royal Russian Army.

† In 1757 there happened something similar, on the occasion when King Frederick commanded all four columns of the army advancing into Bohemia, as being commander-in-chief, and commanded further the division marching from Dresden in his capacity of particular commanding general. But a Frederick, who was assured of his authority under all circumstances, could allow himself to do such things, but not a Charles William of Brunswick, especially when he had a Hohenlohe under him, and was besides himself in a position of dependence.

army of the Duke. As a matter of fact, he had only come in order that his presence should increase the energy and the rapidity of all measures; and his influence naturally leavened the whole, for the Duke, before taking decisive steps, proceeded to hold councils of war, which the Monarch attended. The King was attended by Phull, the oldest officer in the general staff, and virtually its chef, because the nominal chef, Geusau, owing to his being engaged in the administrative department of war, did not trouble himself with the command. The field-marshal Möllendorf was also with the King, for though, owing to his eighty-two years, it was not proposed to give him active employment,* it was believed that his experience was needed. In like manner Zastrow, in whom Frederick William III. had in earlier times felt special confidence, was summoned to the royal head-quarters. Colonel Kleist, the adjutant-general, was attached to it, owing to his influential position. A subordinate rôle was played by Kalckreuth, who commanded the reserves of the main army, and always attended the persons of the King and the Duke. Diplomatists likewise took part in these deliberations and decisions. In these conferences it was only Scharnhorst who took the Duke's part, the chief of his staff, junior in rank to Phull, and even to Massenbach, new to the army, and without the gift of making, in a short time, his personal influence felt. The side of the actual commander-in-chief was accordingly, even in point of voices, doomed to play an inferior part. The King's personal adherents decided all matters. Instead of leading, the Duke was led, and this, says Clausewitz, he suffered very readily.

In the council there was no lack of acute men and well-educated, first-rate soldiers. Some of them—Scharnhorst, Kleist, and, we may say, Phull also—rose, in later times, to great historical renown. But what they all here jointly effected was worse than nothing—in short, the acme of confusion and indecision.

The cause of this unhappy character of the supreme command was exclusively due to the considerations paid to leading personages, to gratify whom divisions of the army were made and offices created. Unfortunately such considerations, where there is no

* In 1805 he had been in command of a reserve corps.

great power to lead, are wont to interfere in most momentous questions. Clausewitz, who served on that campaign as a staff-captain of twenty-six years, and as adjutant of Prince August, saw very clearly, in spite of his modest position, how matters stood.

"With what difficult circumstances Scharnhorst has to contend is scarcely credible," he wrote to the Countess Marie Brühl, on the 29th September, "yet one gets some idea of it when one knows that there are three field-marshals and two quartermaster-generals with the army, where properly there should be only one field-marshal and one quartermaster-general. I have never in my life met a man who was more qualified to overcome difficulties of that kind than the man to whom I refer; but how much of the effect of his talent is not lost, when it becomes weakened by so many conventional impediments, and lamed by the unceasing friction of strange opinions! *So much is certain, that an unlucky issue, should such come about, will alone be attributable to these petty conventional considerations, for, in every other respect, this moment* is a very enviable one for the King of Prussia."

Now, when, in the further course of this book, head-quarters are spoken of, we must carefully distinguish between the *great head-quarters*, which have the control of all the armies in the field, and the *army head-quarters* of each single army, which, in German official language, are described as being "*armee ober-kommandos*." As far as the actual nature of the thing goes, both are essentially the same, and what is said of the one will, as a rule, be true of the other. I shall, therefore, for the purposes of this work, ignore any distinction in principle, and shall only point out differences just where necessary.

The proper constitution of the head-quarters, especially the harmony existing between the commander-in-chief and the chief of his staff, can do much towards supplying the want of heaven-born strategists, of whom we treated in the foregoing chapter. Definite rules on the point cannot be laid down.

A happy co-operation depends in the first place upon personal sympathy. Where this latter does not exist, all theory leaves us in the lurch. If different natures are to mutually supply each other's

deficiencies, there must exist one common and similar character, and all the diversities that there are must be confined to individual talents and inclinations. The chief of the general staff is differently situated with respect to the head-quarters than is the general field-marshal. He has the choice of a number of persons, among whom he can select those most suited for his purpose, as well as such as are, at the same time, acceptable to him in personal intercourse. The commander-in-chief, on the other hand, is dependent upon the person of the chief of the general staff, and cannot put him on one side without producing confusion. It is, accordingly, before all else, essential that a good choice should here be made. Bad relations existing between both these men must produce the worst possible effect upon the whole army. It will be seldom that anything of the matter will be known abroad, and the cause of the failure will be looked for elsewhere than at its real source. Only after great disasters are polemical writings or the investigations of courts-martial wont to throw some light upon the internal relations previously subsisting. We are at once reminded of Bazaine and the chief of his staff, Jarràs, whose want of harmonious co-operation has been disclosed to us by the famous Trianon action. Their previous relations had been good. But Jarras, so long as the Emperor had himself taken the supreme command, that is, from the commencement of the war until the afternoon of the 12th August 1870, filled the position of a second chief of the general staff, under Lebœuf. Bazaine, accordingly, regarded him, when assigned to him by the Emperor as chief of his staff, as an uncomfortable spy, whose duty was to control his actions rather than to promote them. Besides this, General Jarras had been left without any information as to the general situation of the army. This circumstance rendered it difficult for him to be of real assistance to the Marshal.

Bazaine, therefore, kept him away from the command, assigned to him a purely passive sphere of duties, and regarded him as nothing more than a secretary of high rank. The consequences soon came. On the 12th August, the Marshal resolved to march away with his army from Metz to Verdun, to avoid being shut in. The idea was correct, but the mode of putting it into execution was the most miserable that can possibly be conceived. Bazaine

himself had given orders to march, and had laid down the line of march, viz. by Mars la Tour and Etain to Verdun. Thus it came to pass that, whilst four roads might easily have been utilised for the retreat, the whole army, with its cumbersome baggage, was forced upon the one single road leading from Metz to Gravelotte, and was blocked up for days in the narrow valley abutting on the Moselle. Had not the independent action of certain subordinate commanders come to its assistance, the confusion would have been still greater, and it would have been utterly impossible, even by the 16th August, to have deployed the army into battle array. "At a moment when the question of hours might decide the fate of France, the most elementary rules of precaution were neglected."* Bazaine threw the blame upon the chief of the general staff, who, on his side, declared that he had not heard anything about the whole movement until it began to be carried into execution. Which of the two is right, and which is wrong: whether or no Bazaine purposely did not consult with Jarras, or whether Jarras felt himself too quickly offended, and held back at the wrong time, is certainly hard to determine. The mutual relations of the two were, in any case, false. Neither of them ought to have permitted them; for they certainly contributed, in no slight degree, to the destruction of the army—and the army paid the penalty.

The field-marshal of modern times can no longer be all in all. Even genius requires independent and trained co-helpers, how much more then a commander who is not a star of the first magnitude be in need of counsel and assistance! The mechanism in the command of an army has become too great for one single individual. Technical matters are likewise concerned, and these require special knowledge.

For psychological reasons, again, intimate relations between the general and the chief of his staff are none the less requisite. A general is always rather circumscribed by a sense of responsibility, and prejudiced by the originality of his judgment. It is accordingly just as well to assign to him a second soul which, freed from this pressure, finds it easier to preserve to itself its full objectivity and liberty of views. Between both a give and take of

* Words from the accusation against the Marshal V. der Goltz, *Volk in Waffen*, 2nd edition.

emotions will take place; and thus, in the making of a resolve, all that proceeds purely from personal sensations will be wanting. But the intercourse must needs be a very intimate one.

The field-marshal, even when he is not the supreme head of the whole forces, should, accordingly, be allowed, as has been urged above, to appoint the chief of the general staff. He ought to be certain that he will not, for the most important epoch of his life, be fettered to a personage towards whom he has an antipathy. How much of his feats and exploits are not dependent upon his frame of mind! and this latter again is, in great measure, influenced by the kind of intercourse he has with the man with whom he must work together daily and hourly for the solution of the most serious questions.

The proper functions of a chief of the general staff are not regulated by law, and would not permit of being defined by law. Individual circumstances, capacities, and inclinations must decide all. Frederick and even Napoleon were virtually their own chiefs of the staff; and yet the former missed Winterfield, and the latter Berthier, when obliged to do without them.

Napoleon dictated to one of his adjutants definite instructions for the Major-Général in the form of a letter. "My cousin! Order General S—— to collect the enemy's artillery that we have taken in E——; order the Quartermaster-General to bring up thither all the magazines as well; order Marshal M—— to occupy with a strong force the neighbourhood of F——; have a large hospital erected there," &c.

In short words he thus enumerated his measures. Berthier separated them from each other, drew up each order specially and addressed them to the several addressees. But additions had, of course, to be made to them. Napoleon's memory was excellent for facts and topography, but was weak for proper names. This we have not merely by Bourienne's testimony, but the Emperor's letters themselves betray it. Very frequently we meet with passages such as these: "The General who commands in W—— must proceed to E——, in order to take over the command; the General who is now at K—— must draw closer to the army." And this in places where we may with certainty pre-suppose that the Emperor must have known beforehand who the persons in question

were. In this respect he was very incorrect. In matters of fact, however, there was, as a rule, nothing wanting. Berthier's position was more that of a chief of the Cabinet with high functions than that of a chief of the general staff.

King William, in 1870, allowed his chief of the general staff, General v. Moltke, to issue independently to the *armee oberkommandos* the orders to carry out the evolutions which had been preconcerted in counsel with him. They bore the signature of the chief of the general staff, but were regarded as royal decrees.

The constitutional monarch of a modern civilised state, who is, even during the war, engaged by governmental cares, and harassed by questions of internal and external policy, will be obliged to allow the chief of the general staff more independence of action than a general that ascended the throne, like Napoleon, and whose government is, strictly speaking, merely a military dictatorship.

Quite different again must the state of things be where one general in the army takes the place of the commander-in-chief, and another the place of the chief of the general staff. In this case both are able to an unlimited extent to devote their energies to the command of the army. According to this it would be natural if the office of chief of the general staff were to become circumscribed.

But it remains firmly established that the general must direct his strength principally to great resolves, to conquering inevitable doubts, and to attaining an unshaken clearness of conviction. It is not wise to burden himself too much with details of execution for which smaller creatures, by endeavouring to conquer their inward restlessness, display a special inclination. Employment certainly gives us a kind of tranquillity. But men behave like the ostrich, burying their heads in the work, and forgetting over it the anxieties of the moment. The general must not do this; otherwise he runs the risk of averting his glance from important questions and directing it to empty trifles. If, after consultation with the chief of his staff, he has definitely declared his resolve, and has arrived at an understanding with the latter upon the general plan of operation, everything else, the carrying out of orders and the arrangement of the various details, is best entrusted to the chief. That commander-in-chief who insists him-

self upon writing and directing, robs his mind of the leisure required to furnish him with ideas. He ought to think, rather than wield the pen.*

Where the armies are of great strength, the chief of the staff must avoid confining his own sphere of action too much to the secretarial duties of generalship. He ought every moment to be at the disposal of the commander-in-chief, in case the latter needs his advice. The necessity that work with the pen once taken in hand should proceed without interruption, demands that it should be left to someone who cannot be called away. It is doubtful praise for a chief of the general staff, if, in the ordinary sense of the word, he be called a great worker. True, he needs untiring activity, but this must be confined to directing rather than to spontaneous action. Certain orders, especially important documents, directions for decisive evolutions or battles, must be written by him with his own hand. Hereto belongs also the correspondence with the central head-quarters and with the general staff of the collective forces. But of the daily work he must throw as much as possible upon other shoulders.

His position is a twofold one, and, as such, very engrossing. On the one side he must be the counsellor, friend, and confidant of the general in command, and, on the other, the organiser and conductor of a numerous staff, frequently composed of very heterogeneous elements.

If it be true that the energy of a commander-in-chief is, under certain circumstances, dependent upon his frame of mind, this is equally true of the whole staff. Its chief gives, by his behaviour, the tone to the army. If this tone is a happy one, full of many-sided contentment and friendly co-operation, the machine will work doubly as safe, quick, and well. Dissension and bitterness, which easily enter into a body that is composed of such heterogeneous elements, where a wrong personage is at the head,

* The number of the troops is certainly of moment. An intelligent and independent general at the head of an army consisting of divisions can best himself, on account of the greater expedition, jot down on paper the few orders that are to be made. But he is, as a matter of fact, only a general in command, and a commander of an army in name only. What we have just urged is true principally of the great armies of five or six army corps and some cavalry divisions, which now-a-days are considered the normal arrangement.

may ruin all, even though the clearest heads are there. In the head-quarters of an army the best man in the army ought properly to stand. It must, accordingly, be required, more than elsewhere, of him that he gives the best of his strength to the best of his ability.

Thus harshness in service is, in this place, less justified and less serviceable than elsewhere. The more friendly the relations of the whole the better everything works. From the brilliant interior there always falls a beam upon the troops without.

Ill-temper or satisfaction shown in the highest places communicates itself to the troops. They play a great part in the exploits of armies.

It follows, from the position of the chief of the general staff, that not only an important, but also, sometimes, a personage of winning manners is required, who must also have the gift of natural influence over others. There are people enough who, in the most friendly way in the world, can get the most exacting performances out of each one of their subordinates. Such men are pre-eminently qualified for chiefs of a staff. As there is no fixed rule for the position of the chief in an army, so there is also none such for the functions of the individual members of the staff. The republican freedom thereby created has great advantages. So long as in peace no army unions exist, the "oberkommandos" will be improvised. Officers of the general staff, and the adjutants, are collected from the whole land, and are often neither known to each other nor to their chief.

If everything were laid down beforehand, according to rank and age, as to what each had to do, that would, at the first look, certainly have the advantage of simplifying the whole. But this advantage is only a small one. It does not outweigh the important disadvantage that it is, more or less, a matter of chance that the right person comes into the right place. Given a few days, the colleagues become accustomed to one another, and each falls into the place most suited to his individuality. Little depends upon rank, but everything upon harmony.

It is necessary to relieve the chief of the staff, not merely of work, but also of a number of small cares which are entailed by the daily life of the army. Therefore, though he ought to set the

tone of the head-quarters, his time ought not to be taken up by the many decisions which the living together of fifty, sixty, or seventy officers and civilian officials require.* He needs for this purpose a representative, so that questions, disputes, and difficulties at once find their way up to him.

Hence the necessity of having a representative of the chief in the head-quarters. As such we regard the general, or principal quartermaster-general. The French army of the Rhine had, in 1870, in addition to the first-named, two *majors généraux*, who divided these duties.

The quartermaster-general in the great head-quarters of the whole forces, and the principal quartermaster-general in each single army, can create for himself a great sphere of action ; for there are innumerable matters, each one of which does not exactly decide the fate of an army, but all of which together exercise an important influence upon it. Numerous questions of internal management which concern the comfort of officers and soldiers daily occur, but for which neither the commander-in-chief nor the head of his general staff will find time. They belong to the province of the quartermaster-general. His instrument is the orders of the day, which, independent of the orders for the movement of the troops, concern the whole of the internal life of the army : personal matters, the transport of prisoners, the sick and wounded, the details of reinforcements, as well as the many necessary commands, &c. His special duty it is, also, to keep all the wheels of the machine in uniform motion, and to regulate their working, as well as to exercise supreme control over the *bureaux* of the head-quarters.

The general or principal quartermaster, when it is necessary to assist the general by giving advice in certain matters, will often be able to afford the chief of the staff valuable assistance. Two shrewd men convince each other sooner, and less easily exhaust themselves in giving reasons pro and con, than one man. But it is essential for both to have one heart and one soul, because otherwise the fatal cohesion of influences and a mutual paralysation are unavoidable.

* In great head-quarters of all arms these numbers increase five-fold. In spite of all possible limitation of numbers, there will always be a great number of followers.

For the organization of such important bureau service an officer must be clothed with the functions of "bureau chef," without it being either necessary or practical to give him this title. Very much depends upon the correct and rapid expedition of orders, almost as much as upon their being well drawn up. The greatest disasters and difficulties may arise through false transmissions, or by a mistake that is of little importance in itself; a wrong address may bring one army corps into confusion, another into doubt. When such mistakes frequently occur, mistakes proceeding from subordinate persons, the confidence of the troops in the whole command is lost.

It will be difficult to find anyone to discharge these duties who has not a talent and inclination for them. Therefore, in this place, all considerations of rank must cease, and only a fit and proper person must be duly chosen. Persons that are imbued with bureaucratical notions, and such as prefer before all else the slow old method of bureaucratical duties, and feel in cleverly despatching a pile of papers as much pleasure as a general does in a battle which he has won, are, as a rule, not far to seek. It is only very requisite to keep aloof from this office, an office to which a certain external and noisy importance is attached, such persons as only wish to make themselves important, who, for the sake of their own importance, prefer small details to great questions, and who perpetually hinder great matters by ever meddling and muddling with rubbish. Quiet conscientiousness and taciturn circumspection are here the greatest essentials.

The general staff, which, according to the strength of the army, consists as a rule of four to six officers, occupies itself in the main with the working out of marching orders, billeting, and battle. With one word, its duties include everything that the army-orders contain with reference to the operations of the army.

A special art for which again great talents are requisite, lies in the drafting of orders. It cannot be done by everyone. Persons who conceive the best ideas, do not sometimes understand how to express them clearly in writing. As it is necessary to follow closely and exactly on what has gone before, and to work with the memory, the duty of issuing them must be in one hand.

Again, as time is as a rule very valuable, it will be difficult

to assist the old general staff-officer who is entrusted with this duty by any previous preparation. Any moment fresh orders may be required, as the state of affairs changes, and thus this officer must be ready for work, day and night.

Here it is where, besides clearness of thought and language, the greatest energy for work must be displayed. Unweariedness must be a conspicuous quality. He will naturally very soon become the special confidant of his chief, and it is well here to choose a man who holds among his comrades a natural authority, so that his special position does not lead to differences.

Next, the general staff must control the intelligence department. Knowledge of the enemy's country, its language, and of the enemy's army, are especial qualifications for this post, and, besides this, a certain talent for discovering things which cannot readily be defined. Industry and caution often play a greater part in this intelligence department than the gift of guessing secrets. All reports, announcements, and correspondence, which serve to explain the movements of the army, matters of railway and telegraph interest, and, besides this, the inevitable correspondence with the enemy, with the civil officials of the country in which the war is being waged, the map and book department, and finally the keeping of a diary, are all part of the duties of the general staff.

Besides these, reconnoitring, information relative to its own army, or such affecting the situation of the enemy, the sending of orders, and oral information, the explanations of mistakes, and assistance in superintending the carrying out of orders, all come within the sphere of its activity.

The adjutant's department in the *ober kommando* superintends personal matters, advancements, petitions, grants of decorations, and the keeping of rolls of losses and strength, the fresh drafts of men and horses, the ammunition, as well as the intercourse with private persons.

In the field, the service of the adjutant's department unites itself with that of the general staff, for the same purposes, and there is not any vital difference between them. The individuality of the several officers is, in this case, more decisive than the fact that they fall under the one or the other category.

Certain orderly officers are always indispensable to the head-quarters. Their special duties consist in the carrying of written orders to the lower commands. In their efficiency, perseverance, punctuality, and tenacity in overcoming unforeseen difficulties, great value must be placed. To distant and solitary rides into the enemy's land, especially when the population is unquiet, there belongs much determination, courage, good horsemanship, and a good horse. The best mounted cavalry officers, of whom it may be at once declared that they do their duty by day and night with alacrity and adroitness, are chosen for these duties in the head-quarters. Both man and horse can perform more in time of war than a civilian can readily believe. A patrol officer, under Prince Frederick Charles, covered the distance between Orleans and Vierzon—twenty-two German miles—on one winter's day during the Loire campaign, upon the same horse. Similar feats were performed several times in the German armies. In the *ober-kommando* of the second army, it was found at that time practical, up to a distance of ten German miles, to have the orders executed directly by orderly officers,* and only to employ other means, such as relays, where greater distances were to be covered.

Communication between the various head-quarters is kept up by the *feld-jäger*, of which every *ober-kommando* has several, where it cannot be done by telegraph. These make their journeys as a rule by carriage or railway.

Freedom and mobility in employing the forces at disposal is of advantage at head-quarters as everywhere else. Yet, in certain branches, a mechanical system may be of service, that it may not in exciting times be forgotten, and fail to act, to the detriment of the whole, when it is most necessary. It were well if every member of the *ober-kommando* were obliged, in addition to his ordinary duties, to bear one thing in mind. We only need remind our readers of those numerous cases where armies have lost touch

* It is well always to send two orderlies at the same time on considerable and dangerous distances, not only for the sake of greater security, but also because horses in company go better, and remain fresher. It is seldom of advantage to send soldiers with them. One or two horsemen, in the case of a brush with the enemy, can do little service, and their horses are, as a rule, not good enough to keep even pace with those of the officers. They accordingly are more likely to be a hindrance, and bring them into embarrassment, than to be of service

of the enemy. The reason almost always is to be found in the fact that the care that always was devoted to the intelligence-service slumbered at that very moment when great impressions took possession of the senses. This was especially the case after bloody battles. The late wars afford us examples enough of this. Nothing is easier to explain: a decision by arms takes possession of all the senses and thoughts. A reaction takes place in the energies that have been hitherto exerted to their utmost, immediately the decision is over. Each company will, as a rule, satisfy itself with resting for the moment on its laurels. Time goes quicker than was thought possible; people then begin to rub their eyes and to make the discovery that the enemy has gone, and all touch of him lost. In head-quarters, in such moments as these, complaints are loud that no intelligence whatever is to be had of the troops. The fact is overlooked that a comparatively large number of well-mounted officers is at their disposal to fill up the gap, by a rapid ride up to the enemy. The men, through whom the important orders should otherwise proceed, are at that moment occupied with other matters. A meeting of high staff-officers, or even of many members of the *kommando*, upon a battle-field that has been won, is easily productive of the fact that, whilst discussing what has just taken place, the interest for what is coming escapes unnoticed.

It will be a good arrangement if a man who is not occupied too much with other matters, and is, besides, not too highly placed, be made the sole responsible authority to see that all intelligence is not cut off from the *ober-kommando*. He may, without detriment, be given certain independent authority over the younger officers of the general staff and adjutant's department, and this, as a rule, will suffice to assist the troops in their intelligence duties, or, at all events, to supply their deficiencies.

But we have as yet only cited a single instance. Experience will teach us that a similar institution acts well in many respects.

In the case of the representatives of the auxiliary forces, for the artilleryman and engineer, who serve as counsellors of the commander-in-chief as well as on their staff; and, again, in the use of the administrative departments, the quartermaster of the army, the surgeon-general, the chief of the field police, the post-

master, and the heads of the telegraph department, &c., their functions are, from the very nature of the case, more distinctly defined. In their case orders and instructions may be given which, whilst they allow free scope to the quartermaster of the army, must, in the case of the postmaster, be very precise and restrictive. As the duties of all these functionaries move in certain grooves, definite instructions are not in their case attended by the dangers such as would beset the general staff proper, for which each day has surprises in store such as cannot be provided against. Independence, and the capability of taking upon themselves the initiative, are also of importance for the subordinate branches of the head-quarters. War brings everyone into unforeseen situations.

The duties of the artillerist, the engineer, and of the administration and medical department have, of course, perpetual points of contact with those of the general staff, and are, in many cases, identical with them. The *chef* of the general staff will, in his general conduct of affairs, secure the necessary harmony in working; and will frequently work with the several departments. Especially will this be the case in the quartermaster-general's department, as will be seen when we come to treat of the commissariat.

No unimportant personages are the two officers attached to every head-quarters, to whom special attention is not generally paid. The first is the commandant of the head-quarters. It is his duty to see to the discipline and orderly conduct of the small troop, which an *armee ober-kommando* represents, with its officers, its men, its carriages and horses. This duty is a very troublesome one; for discipline is hard to maintain in such an incongruous body, formed only at the commencement of hostilities, and consisting of most heterogeneous elements. There is here wanting that hierarchical spirit which is the life and soul of a regiment. Disorder may be followed by serious consequences, trivial as it appears to be, whether the train-soldiers in the body or the waggons are punctual or unpunctual, or march in this way or in that.

Officers of the general staff, adjutants, &c. have seldom time in war to see to their own affairs, their servants, their horses and chests. The bureau demands their attendance immediately they dismount, and they frequently only leave it again, when a move forward is made, without having time to look after their own affairs.

But a lame horse, a lost shoe at the moment when, perhaps, we wish to take a sharp ride, annoys us the whole day; whilst a chest that has been mislaid, when we want to get quickly to work, utterly ruins the temper. Complaints of persons that they have lost this or that, are all the less readily attended to, as we can seldom assist them. It will be said that trifles ought not to be of any influence whatever in such momentous times; but we are once and for all men, and remain human even in war. That feeling of importance which during the first few days fills everyone, is lost when the campaign has lasted a few months, and then the trivial annoyances of daily life are of more effect. The commandant of the head-quarters, who knows how to make himself its father, and who, in his capacity as universal provider, clears away all rocks and makes room for contentment and good humour deserves not only the thanks of his colleagues, but of the whole army as well.*

For the same reasons the *Quartiermacher* of the head-quarters is an important personage. A gastronomical talent should be found out, who is ready to cater for the bodily wants of his comrades. Hunger and thirst cannot, after all, be disregarded by even the most passionate soldier. At the head-quarters all those who are in any respect important personages have no time to provide for themselves. This care must be taken from their shoulders. The general in command ought never to be obliged to trouble himself about personal comforts. His staff is there for the express purpose of removing every stone from his path, and his servant should, like himself, be a genius in his profession. It is a matter of course that the man who, in the midst of his great exertions, lives well, keeps himself in every respect fresher than does he who is starving. These small considerations must not, therefore, be left unnoticed; otherwise they force themselves at wrong times upon the attention and insist upon their due.

The lower authorities, like general *kommandos*, staffs of division, &c., usually exist in time of peace. The spheres of action of the several departments are regulated by long habit. As a rule the

* At his side stands the commander of the reserve-watch—that is that small detachment of men that is assigned to the head-quarters for orderly duties of all sorts. It may be a material support for the commander of the head-quarters.

same groups are distinguished as in the head-quarters of the army. The further we descend, the wider does each individual sphere of action become. In a division, for instance, where there is, in our army, only a single general staff officer, he must become a factotum of the division and unite all in his own person. His duties demand greater versatility and more activity than those of a general staff officer at head-quarters. He is chef, quartermaster, and general staff; all three at once.

A good organisation of the several *departmental commands*, and a happy choice of the men who are dependent upon each other for the period during which the war lasts, and a clear hierarchical grouping—these are the bases of good generalship.

We Germans have in late years been very successful in the organisation of our head-quarters. The experiences of 1806 were not made in vain. But all only turned out so well as it did because no one looked about to try and discover how model head-quarters should be constituted; but historical development was allowed free scope, and it proved itself as successful in this matter as it did in many others. The head-quarters of the Silesian army of 1813 are the model for modern times. Their origin was due to the personal relations subsisting between the men who filled the highest positions in it—Blücher, Scharnhorst, and Gneisenau,* who met together, unanimous in opinion, when their fatherland was hard pressed, and worked together in harmony until the long-wished-for hour struck which realised the dream of the liberation of their country. When Scharnhorst was no more, the unity was still preserved. 1864, 1866, 1870, the tri-unity, viz. *commander-in-chief*, *chef*, *quartermaster*, was again adopted. Here, too, men met together who had met together in time of peace, and of whose concert the country was assured when war came. But, in spite of all this, there will have been plenty of difference of opinion. How should it not be so, when vigorous characters, to whom the cause is more sacred than personal interest, are called upon to act in concert. But never did anything of it ever penetrate into the outer world, and never did the army or the great cause suffer thereby.

* Later, after Scharnhorst was wounded, and after he had died, Blücher, Gneisenau, and Müffling

3.—*The Command of an Army.*

It is a difficult art, to command properly. In life everyone learns that it does not matter so much *what* and *how much* is commanded, as how commands are given. Parents find their best experience in their own children. They know that obedience is very dependent upon the more or less definite form in which the command is given. It frequently happens that in the tone of the voice a doubt is expressed as to the effect the command will have, and then, in spite of the most violent expressions and most energetic gestures of the person commanding, disobedience is certain to follow. Our rules of education run as follows: to forbid nothing where disobedience of the command can, owing to the force of circumstances, be with tolerable certainty predicted; and to command nothing to be done, the accomplishment of which must prove subsequently to be impossible. But before all things —and who does not know this?—every command must be clear, so that the recipient of it knows exactly what is expected of him. And war does not know other than these simple rules of command; there is not any higher wisdom than this.

These rules are very simple, but their application in the arduous duties of war is not easy. In war, there is attached to every order a great responsibility, and when a mistake is made in it, punishment is generally not slow to follow. That fills the person commanding with secret anxiety, and we readily perceive that, in the case of a good commander, the character is more concerned than the intelligence.

This results, moreover, that in war, where matters are serious, we must reckon more upon a lack of orders than upon a superfluity of them. Too many orders, at all events, are wont to be only of a negative character. Where the possibility of a disaster is in the air, an order is easily sent; but that order cannot alter the state of things—it is only intended to furnish a proof that the person commanding has thought of the danger. Frequently it is also accompanied by the secret wish not to have to bear the fault oneself, but to successfully throw it upon some other shoulders, as is done in the case of certain games at cards, the

slipping a bad card, just before the close of the doors, into one's neighbour's hand.

Finally, all orders in war rest upon a very insecure basis. They have been built up upon knowledge of the enemy, and this knowledge is never quite perfect; therefore the observance of the rule that nothing be commanded that is incapable of being carried out is rendered exceedingly difficult.

If these facts found proper consideration; if everyone would only command that for which he is ready to undertake the whole responsibility; if negative orders were never given, and if no one issued any more orders than such as, from the knowledge he possessed at the moment, could be with certainty carried out, much would be gained.

And then we must find a proper measure of how far we may enter into details in issuing commands. A number of considerations here confront us; the whole constitution of the army must be considered. We Germans were often not able to suppress a smile when the "instructions" which the French generals issued to their armies, and especially to those of the Republic of September, fell into our hands. The well-known book of Chanzy, *La deuxième armée de la Loire*, contains a considerable number of them. We find there first of all narrated what has taken place, in a conversational manner, as, for instance: "The enemy endeavoured to-day to force us from our position; he attacked us time after time at St. Laurent des Bois, and pushed forward near Poissy towards Cravant and Villorceau. According to information that has been given us by prisoners, the whole army of the enemy was engaged, together with numerous artillery. We have, in spite of this, resisted this attack with much energy, and we have remained masters of our position, after causing the enemy considerable loss. It is necessary that everyone should be inspired by this new success, and should take fresh hope; for we must keep our positions and withstand them once again if the Germans should make a fresh attack."

Such and longer narratives form the introduction to orders which fill up three or four pages of print, and contain a number of details. Such would, in our case, be impossible to conceive; and yet these orders were issued by one of the first French generals of

modern times, and who was assisted by a distinguished chief of his staff.

The reasons of this were due to the extraordinary constitution of the army, in which much that is a matter of course with us was not at all a matter of course with them, and therefore must be especially ordered and enjoined. Numbers of officers were new to their duties. Many men of note in the quickly collected army had drawn their swords for the first time in order to help defend their fatherland in its general distress. There was a lack of independence, experience, and circumspection. The field-marshal had not simply to issue his orders, he had at the same time to teach and explain to each one as clearly and precisely as possible what he had to do, were the "instructions" ever so long-winded. That a Turkish Pacha must needs command his Mesopotamian and Armenian troops in a different way to that in which a German deals with his, is self-evident. The peculiarities of the army, its training, its habits, &c., must in each case be decisive.

But taking a system like ours, we may lay down a few general rules. One such, that the superior officer should never prescribe to his subordinate at a distance what the latter is better able to see from being on the very spot: in this way orders are simplified, and the recipient has the necessary sphere allowed him wherein to exercise his discretion. No order should be issued in the case of a thing which one might be convinced would be done even without special orders. There is something very dangerous in habitually giving orders as to such matters, and the commandant may only give vent to his care that nothing should be forgotten, by his control, and not by calling attention to it in his orders. If the troops are once accustomed to have every detail that they have to obey enjoined upon them, they become accustomed to do nothing when orders are once wanting.

The most important and the best orders that have ever been given in war in our time were very short and simple, as, for instance:—

"According to intelligence received, it may be taken for granted that the enemy will assert himself upon the plateau between Le Point de Jour and Montigny la Grange.

"Four battalions of the enemy have advanced into the Bois de

Genivaux. His Majesty is of opinion that it will be best for the 12th Gardes du Corps to march in the direction of Batilly, in order, in case the enemy marches off in the direction of Briey, to come up with him at St. Marie aux Chênes, and, in case he remains upon the high ground, to attack him from Amanvillers.

"The attack would have to be made simultaneously by the first army from the Bois de Vaux and Gravelotte, and by the 9th Army Corps towards the Bois de Genivaux and Vernéville, and by the left flank of the second army from the north."

These were the decisive orders for the attack before the battle of Gravelotte and St. Privat, an attack for which 200,000 men were set in motion. There is nothing here mentioned of the manner in which the troops are to form, and what precautionary measures they should take, how they are to support each other, and how they are to keep their connection with each other, &c. That was all left to the commanders-in-chief of the armies and the generals in command.

Let us, secondly, take as an instance one of the executive orders which followed the first. It was issued in the second army. "The enemy is concentrated on the heights of Leipzig and Bois de Vaux. He will be attacked there by the 1st Gardes de Corps, advancing by way of Amanvillers; by the 9th Corps, advancing by La Folie; by the 7th and 8th Corps in front. There will advance to reinforce them, the 12th Corps upon St. Marie, the 10th Corps upon St. Ail, the 3rd Corps upon Vernéville, the 2nd Corps upon Rezonville." Here, too, there is certainly not one word too much. Yet it is not said that in any particular case a single detail may not be directly commanded from above, the importance of which cannot, in lower commands, be distinctly perceived; for instance, in a former order issued for the same attack of the 18th August, we find: "The 9th Corps shall march up in the direction of, and upon Vernéville and La Folie. If the enemy is posted there with his right wing, the Corps shall begin the action by bringing a considerable force of artillery into play."

Here, then, we find the manner in which he shall carry out his orders prescribed to a commanding general; but there was a special reason for it in this case. It was the intention of the supreme com-

mand not to attack decisively in the front, before the enemy's right wing was completely turned: it was, therefore, necessary to give a hint to the corps which would probably be the first to meet the enemy that it should not engage at first in too serious action, but should only begin the action by a lively cannonade. Similar cases will always happen, and then the commander-in-chief must not, out of respect for the science of warfare, be prevented from personally giving detailed orders.

How far details should be gone into will depend upon the position of the person commanding. The commander-in-chief who leads great armies composed of independent divisions, each commanded by generals of high rank, will often have to confine himself to expressing his wishes and intentions, and to leaving them to contribute to their accomplishment according to their best judgment. Thus, in that first order issued on the 18th of August there is expressed little more than the opinion and general intention of the King. Yet the rule in such cases will not be quite uniform. The commanding general must keep securely in his own hand, and under his own eyes, a portion of his army, in order to be enabled to make disposition of it at any time, whenever unexpected events render his immediate and personal interference necessary. The corps over which he disposes in such moments acts like the rudder of a ship, which could not otherwise be guided. In order to explain how many embarrassments and perplexities may arise when the field-marshal has nothing to dispose of, but has given all his corps full liberty of action, we need only point to the instance of Blucher during the memorable days of 1814. When Napoleon suddenly appeared before Champaubert and attacked the Russian general, Olsuwief, with superior forces, Blucher was with his head-quarters in Vertus. But he had not one single man there at his own disposition. In the feeling of security that had taken possession of the Silesian army since La Rothière, and in consequence of peculiar circumstances, all divisions had independent tasks assigned to them. Blucher and Gneisenau certainly knew that it was all over with Olsuwief, as he was weak, and without cavalry, and the French cavalry hemmed him in on every side in the plain, and that Napoleon, if he had defeated the general, would be standing victorious among the columns of the Silesian army,

and yet neither of the two could either help or devise any counsel; for, in war, help and counsel are without value unless accompanied by bayonets. Marshal "Vorwärts" was obliged, accordingly, in bitter wrath, to decide upon retreat, and to hasten, as soon as was possible, to the corps of Kleist at Fère Champenoise, in order there, at least, to have some troops under his control.

Whilst, accordingly, the divisions that are close to the enemy and are far away from head-quarters, enjoy great liberty, and, as a rule, only know the wishes of the field-marshal, without having any other rule to guide them; those who are far removed from the enemy, and near the field-marshal, are placed at his special disposition, and must submit to have definite orders issued to them, and to feel themselves thus tied to apron-strings. Their comfort must be that *rôles*, as a rule, soon change. The lower the position of a person issuing commands, the smaller his division is in comparison with the whole, and the more will his orders enter into details. Freedom of action confines itself here within even narrower limits. Consideration must be paid to troops lying before us, behind us, and to left and right of us; and thus the possibility of collisions increases.

The commanding general can only, in very rare cases—as, for instance, when he is alone with his army corps and detaches his divisions from each other—issue orders to these similarly to a commander-in-chief to his several corps. If he is compelled to advance upon a road, it will be part of his duty to determine in what order the divisions or parts of his corps should march. The commander of a division must do this as a matter of course, except he has had an independent mission assigned him to perform with his division, which entitles him to act independently as though with a small army. Seeing that a division, as we have already observed, is considered to be the smallest unit for the great operations of war, his orders will, as a rule, reach so far down that each battalion, each battery, and each squadron will learn where its place is without any intermediate authorities interfering in the matter. In battle all this will be altered. The commander of a division will dispose of all the single groups which are naturally formed of his forces, according to the objects and the course of the struggle.

During the war of 1870–71, a practice of commanding had

gradually come into vogue, which proved its excellence under all circumstances, and which may be taken for a model. During the first days of the war, the great head-quarters conducted operations by short telegrams, similar to the manner in which the order was issued four years before for the march into Bohemia by a telegraph message of a few words. The work of the General Staff upon the war, however, hints that this mode was not generally of a satisfactory nature.*

Very soon, after all danger of seeing the plan of the German operations destroyed and one of the armies detached and attacked by the enemy with superior force, was past, and when more freedom of action was gained, the place of short directions, which prescribed the next steps to be taken, was taken by the so-called *direktiven*. The name that was incidentally adopted is not pretty—a German word would have sounded better, but the institution is, all the same, an excellent one. According to the work of the General of the Staff, *direktiven* are such "communications from a higher place made to a lower one, in which not so much definite orders for immediate observance are issued, as leading features. The last named serve, then, as a line to be followed in the decisions that are independently taken." Such communications, which allow of much scope, but which secure an aggregate co-operation of forces, are, in these modern times, peculiarly applicable when, owing to the size of the armies, single objects are to be attained with divided forces. They are doubly practical on the service of a great head-quarters, which lies always at some distance, and can only control the army in its general operations.

In order to give an instance of how such *direktiven* are drawn up, we quote here those which the army of Prince Frederick Charles received after the battles of Orleans and Beaujency, after it had defeated the great army of the Loire, led by General d'Aurelles de Paladines, and separated it into two parts at the moment when it was prepared to march to the relief of Paris. One part of the defeated army, namely, the right wing, which had now become the 1st Army of the Loire, under General Bourbaki, had marched away to Bourg, and the other part, the 2nd Army of the

* Cf. *Der Deutsch Französiche Krieg*, edited by the "Kriegsgeschichtliche" Department of the General Staff, vol. ii. pp. 154, 155.

Loire, under General Chanzy, after having been reinforced by fresh troops, offered an obstinate resistance at Beaujency to the Grand Duke of Mecklenberg, who was engaged in the pursuit, until Prince Frederick Charles turned all the German forces that were on the Loire against him, and he returned westwards, behind the Loire, and, later, to the Sarthe.

The *direktiven* received during these operations, issued in the form of a letter by General Von Moltke to the chief of the general staff of the 2nd Army, General Von Stiehle, date from the 12th December, and run in their most important part as follows:—

"Seeing that in the last days of November, and the first days of this month, we have succeeded in defeating all the attempts made by the enemy in different directions to relieve Paris, it should be our first endeavour to place all the enemy's troops, which were employed for this purpose, and which are but loosely organised, *hors de combat* for a long time, by this energetic pursuit.

"This task, according to my view, must be carried out particularly in the case of that enemy's army corps that has, during the last few days, opposed the division of His Royal Highness the Grand Duke, which army corps must be again pursued with sufficient forces, and, as far as possible, dispersed.

"On the other hand we must not fail to perceive that, before the fall of Paris, our forces will not suffice to extend our operations in a south-westerly or westerly direction too far, and here, accordingly, the operations must, for the present, be restricted, which will further enable us to give the troops the necessary rest after the fatiguing movements and battles of the last few days.

"Without special reason, the line of the Cher, that is Tours, Bourges, and Nevers, must not be passed by the 2nd Army, which should in the reserve of the main forces at Orleans find its base of operations.

"The west to be secured by the division of His Royal Highness the Grand Duke of Mecklenberg Schwerin. If, as seems to be the case, the masses of troops have been brought up from Conlie to the Army of the Loire, and have, in consequence, become included in its retreat, a central position by Chartres, at no very great distance from Paris, would afford a possibility of the

breaking up the union of the armies mentioned, or the interchange of certain parts of them. The orders of the Royal *ober-kommando* with reference to the occupation of Orleans by parts of the Bavarian corps will not be affected by the foregoing scheme.

"Especial attention must, in my opinion, be paid to a permanent and careful observation of the enemy's corps (the 18th and the 15th), under the command of General Bourbaki, which have marched away by way of Giens, in the direction of Bourges and Nevers.

"In case the latter possibly re-appear, we propose the co-operation of General of Infantry Von Zastrow,* who, from to-morrow, is at Chatillon-sur-Seine, and shall be reinforced by the infantry regiments, the 60th and the 72nd. I leave it, therefore, to you to keep up communications with the above-mentioned general."

All *direktiven* are drawn up similarly to this; they declare the views and wishes of the supreme authorities of the great head-quarters, and leave it to the commanders of each army corps to carry them out in the most practicable manner.

An individual commander of an army corps will much more rarely be in a position to employ such *direktiven*, as, for instance, only when one of his army corps is in a solitary position and face to face with a special mission, and it can be seen that the commanding general must take independent action without being able to communicate upon any point with the *ober-kommando*. Such may be the case when a corps shall secure the flank of the army advancing to the attack, and when it proceeds to the pursuit of defeated divisions of the enemy, and is, at times, separated by rivers or hills, &c. In these *direktiven* the necessity will often arise to prepare for various and all possible cases. In former days this was regarded as a mistake, as being productive of insecurity. It is certainly rather precarious to build the orders upon such a shifting basis; the enemy can still do something between the cases provided for, and this will most certainly create perplexity.

But war brings with it positions in which decisions must be made,

* The commanding general of the 7th Army Corps, who marched with the greater part of his army corps through the middle of France, between the army of Prince Frederick Charles on the Loire, and the army corps of General Werder, stationed in the Saone country to secure the line of communication of the Germans with their country against interruption from the south.

and when it is impossible off-hand to decide what operations must be supposed, in the case of the enemy, as being the most probable. The orders of the great head-quarters for the attack of the 18th August that we have just quoted assumes two possible cases for the left wing of the 2nd Army, viz. the two army corps that were to be sent forwards upon Batilly; firstly, that the enemy was marching to Briey, and the other that he was posted on the heights before Metz. In each one of these something different had to be done. Still more striking is the like necessity perceivable in the case of the army of General Manteuffel, when, on the 24th January 1871, it arrived before Besançon. General Bourbaki had, after the failure of his attack upon the Lisaine position, retired along the upper Doubs, under the fortifications of that stronghold. General von Werder had followed him between the Doubs and Orignon. The latter confronted the enemy on the north, and the 2nd and 7th army corps on the south side. There was no doubt at all that the enemy could not remain at Besançon, for there was a lack of provisions to keep the army for any length of time there. General Bourbaki was bound, in the next few days, to clear out from under the protection of the forts.

But in what direction? He might, as the great road to the south was barred, attempt to break through between it and the Swiss frontier, but he might also, in order to save himself, attempt a grand *coup* towards the south-west on both sides of the Doubs. It was, moreover, not impossible that he should break through on the north-west, in order to join hands with Garibaldi in Dijon. All the more so, seeing that thus he confronted the army corps of Werder, which was, for the moment, his weakest opponent. Finally, it might be also assumed that he would lead his army to the Swiss frontier, or that he would await the attack of the Germans under the walls of Besançon.

All this was possible, but, of course, required the most various measures to be taken, and, it might be, rapid decision on the part of the generals who were primarily concerned, before the commander-in-chief could himself issue his dispositions from the head-quarters at La Barru near Dampierre. Therefore *direktiven* were issued which assumed no less than six different cases, and prescribed for the army a certain mode of operation in each one. General von

Manteuffel ended up with the following words, addressed to each one of the commanding generals: "Under the existing circumstances, when an immediate co-operation of the three corps cannot well be effected, and is, perhaps, not even practicable, I do not wish to avoid making known to your Excellency, after what I have just said, my view of the situation, *in order to enable you, at each moment that may be necessary, to conduct your movements before receiving my orders, in case circumstances should demand such rapid decision.*"

Similar instructions were necessary before Metz, when the army of Bazaine was shut up there.

Bad results neither ensued in the one case nor in the other. The unity and practicability of action on the part of all concerned was speedily secured by these means. It will only be necessary not to define too strictly and too artistically these supposed cases, so that it may be possible, without great application of ingenuity, to decide which case has, as a fact, occurred.

All *direktiven* certainly necessitate careful subordinate generalship, and one accustomed to independence.

The old notion of "disposition" has now disappeared. There was attached to it, to a small extent, the idea of a programme of operations for a corps, based upon certain suppositions that go further than a mere order.

We only know, in these days, besides *direktiven*, "army orders," "corps orders," "division orders," &c. The difference between these latter and the former is, that these do not give general ideas, but only prescribe measures, marches to be taken in a certain direction, attacks, &c. A characteristic of them is, moreover, that they are not, as a rule, calculated for various cases, but only for the case *which the commander regards as being most probable at the moment.* As has been already mentioned, they should stop there where doubts begin and the future cannot be perceived. Exceptions will occur, because the line between orders and *direktiven* cannot always be exactly drawn, but they are rare.* In the

* The phrase often used, but which occurs more in theory than in practice, that the army or division ought to act according to the circumstances of the case, is superfluous. If nothing is determined beforehand, there is nothing left but to act according to circumstances, even when no one has given special permission for this to be done.

case of orders, too, although they are cast in much firmer moulds than are the *direktiven*, no rules can be prescribed, yet certain points may be laid down, which will never remain untouched in their essence.

To begin with, every order in war, as is already known, is based upon a definite idea of the position of the enemy. Each one is signed *bona fide*, and cannot be regarded as a paragraph of a law, every departure from which entails punishment. But it loses its validity so soon as it is apparent that the supposition on which it was based is wanting.

Every order, accordingly, begins with information of the enemy.

Here, precaution is imperative; it will, as a rule, be well to mention whence the intelligence comes, especially when there are vague doubts as to its credibility. Supposing the orders from above are simply these: "Information of the enemy says, so and so." The contents of this order will be immediately regarded by the recipients as something perfectly definite; disappointments may thus be caused. If the source is mentioned, as "The news brought by country-folk and spies, and information of patrols, says so and so," every commander is in a position to calculate the degree of credibility. This will either excite his mistrust, and his caution, or will enhance and increase his confidence.

In like manner, what the real essence of the intelligence brought is, and what merely the scheme that has been drawn has supplied according to probability, must be strictly distinguished one from the other. If we were to allow our *esprit d'escalier* free scope with reference to the orders issued for the 18th of August, which is pardonable in the interests of study, the following would appear to us to be worth mention.

On the 18th of August, early in the morning, only the left wing of the French position on the heights of Le Point du Jour was perceived. Only here was a permanent touch had of the enemy by the pickets, and only from this part did intelligence come. What the position of the French front was and how far it extended, was unknown. The right wing could not be surveyed. On the morning of the battle, a communication was issued from the great head-quarters to the armies to the effect that the view taken was, that the

main forces of the enemy stood before Metz and that their position extended as far as Amanvillers. From the extreme left of the French, upon the heights at Bois de Vaux where they were perceived, to Amanvillers, is a German mile; there the bare ridge sinks down to a ravine, through which the railway now runs. The supposition that the right wing of the French was posted on this ravine, and that the front did not extend further, had much in its favour, although it was proved later that it was a deception, and that the French line of battle extended almost twice as far, that is, as far as Roncourt. Thus quite correctly only "a view taken" was spoken of. But this originally clear situation became by degrees more confused. In the orders which we first cited, the position of the enemy was definitely described as lying upon the plateau between Le Point du Jour and Montigny la Grange. Certainly these orders began with the words, "From information received it may be assumed"; but these words have evidently only reference to the sentence that the enemy would "assert" himself, and not to the sketch of the position, which is clearly described by the words "upon Le Plateau, and between Le Point du Jour and Montigny la Grange." In the *ober-kommando* of the 2nd Army where they were also without information as to the extent of the enemy's right wing, this sketch of the position was simply adopted, and in the orders that were subsequently issued by it to its corps and divisions, we meet, for instance, with the words, "The enemy is posted upon the heights of Leipzig and Bois de Vaux."

Thus, what was originally stated as a supposition, was at last treated as a perfectly definite fact. Even if in the detailed orders of the *ober-kommando* of the 2nd Army, issued to the Guards, we do find a more correct conception of it, viz. "The enemy *appears* to be established upon the heights of Bois de Vaux over against Leipzig in line of battle"; yet by the first communications the idea that the enemy's right wing was to be looked for in the neighbourhood of Amanvillers was corroborated to such an extent that all measures were framed according to this end. The Guards received orders to advance upon Amanvillers, in order there to proceed to turn the enemy's right wing, which for all cases was assumed to lie *south* of that place, whereas it actually stood a good way to the north of it, and the corps at Amanvillers would have

struck the enemy about at its centre. Perhaps the illusion shown that day as to the extent of the French line of battle would have been easier removed, had the communications been always and exactly brought into harmony with the real extent of the knowledge of the enemy, and it had perhaps been said "The enemy is established with his left wing upon the heights of Le Point du Jour in line of battle; how far his left wing extends is at present unknown," &c.

It is, of course, incomparably easier to hit upon such things afterwards, when one has seen the consequences of what was then done, than it is in the moment of action. We have, therefore, described our wisdom as being an *esprit d'escalier* which, as a rule, comes to us when we descend the stairs of the council-house, and there then occurs to us what clever things we might have said in the high assembly we have just left. Yet closer investigation shows us there were persons on the spot who hit the right nail on the head. In a report brought in on the morning of the battle,* which describes more in detail the French line-of-battle, we find these words, "Their right wing covered by brushwood, and cannot be surveyed."

Hence, in drawing up the information of the enemy which introduces the orders, the most precise exactness must be employed, and the one or two lines which form the introduction must be drawn up with clearness.

The second sentence of every order ought to contain the intentions of the commander in great outline. They proceed immediately from the information had of the enemy, and they therefore best come close after it.

That the commander-in-chief and the general should lay down his intentions clearly and plainly appears a matter of course, and it would seem, accordingly, superfluous to say more upon the matter; but even on this point experience teaches us differently.

First of all, it is often difficult to lay down one's own intentions for the next few hours ensuing. Situations in war are so uncertain, that in early morning we cannot possibly see what we shall want to do about nine or ten o'clock in the forenoon. Out of consideration for the troops, the orders for the

* From an officer of the *ober-kommando* of the second army.

next day must, as a rule, be issued towards evening, and the night, too, can make many alterations. Very frequently it will not be necessary to regard beforehand aught else than the places at which the troops shall collect the next morning in order to be ready for operations, but this must be laid down with exactitude, in order that the subordinate commanders know that all else is still uncertain; and that they must not, therefore, tie their hands by prematurely touching with the enemy.

Another time, again, the intentions of the supreme command appear to be so patent, that it is considered unnecessary to repeat them in detail in the orders that are hastily committed to writing. They have been the constant theme of discussion in the headquarters, as well as among all the higher officers. It is naturally pre-supposed that everyone must know them. In spite of this, they may all the same have remained unknown in a critical place. How often has not an army corps, that was originally designed to play another part, been called upon to turn the scale. On the 18th August, for instance, the Saxons, of whom it was thought that they would possibly have to undertake the pursuit of the French division which had marched off towards the west, were at last obliged to turn towards the east, and to effect the turning of the right French wing.*

The intentions of the commander-in-chief ought not, as a rule, to be unknown to anyone of his generals who may be called upon to undertake independent action. We have experienced in 1870 that commanders of brigades and divisions have, by their own unaided decisions, brought about battles which were not in the intention of the commander-in-chief, so that they were thus actually determining, on their own responsibility, the fate of the whole army; *and such events will always happen so long as the troops are animated by the desire of action, and so long as the feeling of independence lives in their commanders. They must always take place whenever great forces co-operate, and the best opportunities are not to be thrown away.* But it is all the more necessary that subordinate commanders should be initiated into the general intentions of the commander-in-chief. The secret will thus only be endangered in the rarest cases. First of all, commu-

* This movement, as is well known, decided the battle.

nications never proceed beyond a narrow circle of the high officers, and then, again, in the moment when the orders are issued to undertake an operation, this latter is usually of so immediate a nature, that, even if information reached the enemy, it would be too late for him to take advantage of it.

Though the time before the beginning of decisive movements which lead to a battle is oftentimes very short, there will always be so many minutes as to enable the intention of the commander-in-chief to be expressed in a single sentence with clearness and precision.

As on the 18th August 1870 the one leading idea was not to seriously attack the enemy's naturally strong front until his right wing had been turned, it would certainly have been of advantage to have had this repeated in all orders, even though it must be assumed that it was known to all. As a fact, the attacks made on his front were soon much more energetic than was originally intended. This would have been counteracted if, immediately following the statement as to the enemy's position, it had, on each occasion, been declared how the head-quarters conceived that the attack should be carried out. The intention of the commander-in-chief is the only guide for his subordinate commanders, if the order cannot be carried out in the way intended. It must be brought before them, accordingly, in a palpable and self-evident shape. Following the sentence expressing the intention ought naturally to come the *dispositions*. Their nature is entirely dependent upon the circumstances obtaining at the moment. We shall discuss them, for each individual case, in the following chapters.

As a general rule, an exact estimate of time and space is the chief essential. Mistakes in this respect appear unpardonable, and yet they are often made by great generals.* Only he who is acquainted with war can explain that. A measure is discussed upon the battle-field, and the orders are sketched out. New information is then received, and then has to be considered whether what is intended is still practicable. Commanders come; and the field marshal must speak with them. Some urgent measures claim his attention at the moment. A great cavalry attack

* Blume, *Strategie*, p. 143.

which is being executed demands his attention; a charge by the enemy keeps him momentarily in suspense. Troops march by and salute their popular leader with hurrahs. A few words of encouragement and thanks are indispensable; and then he rides to another part, in order to follow up the end of the battle. Then he is reminded, when the last shots have been fired, of the order that has not yet been sent off. His signature is quickly affixed, and an orderly is despatched with it. He has failed to notice that in the meantime hours have passed by, and that the statements as to time ought to have been altered, and that the troops which have been ordered up cannot now arrive so soon as ordered. Therefore, he relies upon the correct understanding of the recipients, and expects of them the necessary modifications. But the mistake has been committed, and cannot be rectified; and whoever will present to his mind in what state of disquietude such orders are often written will be able to excuse it; but, all the same, such occurrences undermine confidence, especially when they are frequent, and the error is only too apparent.

As to the order in which the dispositions ought to follow each other, something must be said; it will materially depend upon the importance of the individual measures to be taken. That first mentioned impresses itself most of all upon the memory. What is most important belongs, accordingly, here, unless it be necessary to explain matters by an introductory disposition. Then come the measures of second and third importance, which have for their object only to support or secure the principal undertaking.

If a natural order like this cannot be found it will be best to begin with the troops first and foremost in the operations, that is to say, for example, with a mass of cavalry which is hurrying ahead of the army. Whilst in reading the orders we inform ourselves as to the tasks they impose, with the map in our hand, we gain at once a knowledge of the situation of places, roads, &c. which will in the following orders, again play their part, and we are well acquainted with them whenever we meet with them again. Thus we gain in the quickest way a clear survey of the whole.

After all that has reference to the cavalry is done with, the advance guard, the main bodies, the flank-covers, and detachments for special missions should be mentioned.

In this way a consecutiveness is attained which, in its main points, agrees with that which takes place in practice, and this arrangement cannot fail to be of advantage in respect of clearness and perspicuity. No one, except in orders issued for retreat, will place the disposition for the trains and columns before those for the troops, or mix both together. Those belong last. We must, moreover, reflect that commands in war must very frequently be not merely written, but also read and understood, under very trying circumstances. If, in the history of war, we meet with confessions that here something has escaped notice and there something has been forgotten, we are readily and easily inclined to pass severe judgment upon them, and exclaim, How was that possible? We do not, as a rule, present to our minds the fact that the general, be he ever so conscious of his situation, cannot be perpetually awake and in bivouac and in motion, and that weariness gets the better of him, as it does of every other mortal. Perhaps discussions, dispositions, and information and reports have kept him awake until late in the night, and that, too, after a day passed in the saddle in winter-cold and snowstorm; and he is just about to lay himself down to snatch a little rest in his poor quarters, when an orderly officer arrives with higher orders, only to wake him from the sleep, which he has with difficulty found, to renewed activity. He must at once read, decide, resolve, and send further orders to his subordinates. It frequently happens that an interruption of this kind is caused without any reason. He can with difficulty bring himself to give up the rest which all his limbs energetically demand. By a bad light, at a flickering fire, or outside round bivouac fires, he must decipher the writing that has probably been also written in great haste; maps are fetched, and often a table is only with difficulty found upon which to spread it. The longer under such circumstances the order is, the more names it contains, the more artistic its dispositions, the more the main points are mixed up with details, the more opportunity is there for mistakes, misconceptions, the placing of what is of secondary importance before what is of primary, and similar errors. Again, let us reflect that, at least in our army, all men of high rank are of an age when both intellectual and physical energies are on the wane. Napoleon, when only forty-one years of age, complained that he lacked his former

vigour. "The smallest ride is an exertion to me," he wrote. Frederick the Great, who was forty-eight years of age, poured out his feelings to his friend D'Argens: "I have to perform the labours of a Hercules in an age when my strength forsakes me, when ill-health increases, and when, in one word, hope, the comforter of the distressed, begins to fail me." Of the same age are very many of our commanders of battalions, and have still the greater part of their military career before them. Only few commanders of regiments are so young; and generals of brigades in such years, especially generals of infantry, can scarcely be found. And then only still higher up do those positions begin which are of significance in the great drama of war. In the case of men who approach their sixtieth year, or who have passed it, apprehension cannot possibly longer retain the full rapidity, and memory its old vigour.

Consideration must also be paid to this in the orders; they must be easy to apprehend, and easy to remember in their principal parts. Thereto primarily belongs that from the orders issued respecting evolutions and battle all other matter should be excluded. The regulations respecting trains, columns, and transports cannot certainly be left out, for the troops must know where they can find their commissariat and their ammunition, and where their hospitals, &c., but it is sufficient for the most part if the depôts are mentioned. The manifold small dispositions that are still necessary in this respect, are better detailed in a special supplementary section. Then what is important and what has reference to the movement of the troops, what the commander must have with full clearness before his eyes, presents itself then when stripped of all additions, far clearer to view. When, for instance, General Chanzy, in his instructions of the 8th January, gave a long list of appointments and promotion of officers and doctors, adding, according to our measure, to the order of operations about as much as is contained in the "Militair-Wochen-blatt," this we may much readier find fault with than if he had, in the first part of his orders, merely gone too deeply into details, and had assumed a tone of instructor. After these notices as to personal matters, dispositions next followed as to the occupation of the road leading from the forest of Marchenois, that is a part of the order of battle,

and at the close of it a reminder to the general in command to send frequent news. It is evident how easily this might have been overlooked—if not at the first reading of it, at all events later.

An instruction which should never be wanting is, where the commander is to be found, in order that reports and questions may reach him with certainty.

The structure of every order given in war ought to be as patent to view as that of a Greek temple; only then will it have clearness of conception and definiteness of action.*

We must still devote a few words to the influence distance exercises upon commands, because it makes itself felt also in judging of situations in battle.

The immediate impression has always the strongest effect, and it lies in the nature of the case that a more distant danger is estimated less than that which is nearer. Thus it comes about that in war each one believes that where he is standing in the fight the fray is the hottest, and that in his theatre of hostilities the situations are most difficult. On the one side we can be thus led to demand more of others than of oneself, because we perceive plainly enough the task that our neighbour ought to fulfil, but not the impediments in his way. On the other side, under certain circumstances, it is productive of good not to be obliged to think and to act under the immediate impression of danger and difficulty.

Experience proves that boldness of decision increases in proportion to distance. We survey with a calmer view a more extensive part of the field of battle, and perceive better the subordinate importance of a matter which appears to those concerned in it as

* Not without importance in the framing of orders is the use of maps. A concise style we take for granted. But it ought to be made known in every army, according to which of the different maps which are at their disposal the orders have been framed. Not only does each several map present a different picture of the "terrain," but the writing of the names of the places is often dissimilar. What one map brings into prominence in great letters, another shows in smaller and scarcely readable characters. If, now, different maps are used by the commanding officials as the recipients of those commands, great loss of time can easily arise through searching. The author, who, during the war of 1870–71, belonged to an *ober-kommando*, can remember that the whole of one night was spent in trying to find the name of a farm which was mentioned in a report. It was only when by chance another map was taken up that it was discovered; for, on the latter, which had been used in drawing up the report, the name was given in large letters.

being of the utmost moment, because they are immediately confronted by it, and we can more easily devise means which can equalise, by successes on one part, a possible disaster on another.

Beyond doubt the supreme administration is very much benefited by a certain distance separating it from the battle-fields of the several armies. It must be, in every emergency, the centre of energy; must always be ready, whenever a subordinate general is in doubt, to undertake the responsibility for him, and to weigh with full objectivity the importance of all operations, one against another. Therefore it ought to be withdrawn from the influence of the disquietude and anxiety in which the daily life of the troops standing closely confronting the foe moves. Cool calmness ought to prevail in the atmosphere surrounding it. Only in the few critical moments ought it to descend into the excited arena of battle, in order, under its immediate influence, to make its dispositions. If this happens too frequently, the plan of the whole will be lost, and the sight of misery will gradually prejudice the bent of their schemes.

It was striking how that in the winter campaign of 1870–71 the dangers that threatened the Germans in the provinces were always more lightly regarded in the great quarters than in the armies which were in the field, protecting the besiegers of Paris against all attempts made to relieve it. The strength of the army of General d'Aurelles de Paladines that was forming on the Loire, and round which the hopes of France were centred, was at first under-estimated. It was only after the battle of Coulmiers that it was called "entitled to respect," and it was said that it possibly numbered sixty or seventy thousand men and more. Up to that time it was regarded as a comparatively easy task to compass its destruction.

Also in the divisions that were marching against it, doubts increased in proportion as the distance between grew less. Whilst, at first, an easy victory was hoped for over such loosely organised troops, and the end of the campaign was expected in Bourges and Tours; as time went on, information, views, and decisions were rectified; difficulties became more apparent; the great numbers of the enemy were seen more plainly, and found more careful consideration. Doubts as to the practicability of

the schemes were heard aloud. Besides the plans of attack, plans for preliminary defence were made, and the theatre of action was placed closer home, on the Loire, and not further away.

There was, as a matter of fact, good reason for precaution.* Although the troops opposed to us were in no wise as good as those of the fallen Empire, yet the campaign proved, in December and January, much more serious than had been anticipated. In other parts of the theatre of war similar things were happening.

As a fact, however, a very happy interchange took place. Whilst the justifiable vigilance of the armies entrusted with this task diminished the possibility of disaster, the more exacting wishes of the supreme administration of the army spurred them on to activity in a way not to be under-estimated.

Here it might be said that the cleverest and the boldest plans must, in consequence, have been made round the green table, where the direct influence of danger was completely excluded, and where the quiet necessary for thought and work was the greatest. The presence of the commander-in-chief only appeared necessary at the time of decisive battles, and then, even, the oldest general might be entrusted with the command. The telegraph, in the year 1870–71, could have sent orders from Berlin quite as well and quite as quickly to Vesoul and Amiens as from Versailles; so, under the present conditions, a strategy might again be admissible such as was in early times said of the Hofkriegsrath of Vienna.†

We have actually experienced an instance of it. The French Ministry of War acted in a very similar manner. It drew up at the green table in Tours and Bordeaux plans of campaign, and sent them to the generals, without, for the most part, being with the armies in any other communication but that of the telegraph wires. The delusion that it was possible to guide the fate of battles from the quiet of a study led, however, in the end to defeat. The warlike ideas of Gambetta and de Freycinet suffered through-

* As the *direktiven* cited in Chapter ciii. shows us, this precaution met later, in the highest quarters, with complete approval.

† We confine ourselves here, by way of example, to the popular idea of the activity of the Hofkriegsrath. It has lately been questioned in Austria as to whether this department, at least in the Seven Years' War, had any influence whatever upon operations; it is said to have been an administrative department.—*Cf.* Communications of the K. K. Kriegs-Archivs, May number, 1879, of the Austrian Military Periodical (Streffleur), p. 8 *seq.*

out from a want of harmony between wishing and being able, between ends and means. In all these plans a right appreciation of the young Republican troops was wanting.

If, accordingly, the supreme administration of the army does well, as a general rule, to keep itself at some distance from the theatre of war, yet this distance must not be so great that lively internal contact altogether ceases. The general in command must be able at all times to feel the pulse of his army. Of its internal emotions enough must reach him to prevent his being attacked too much by immature impressions, and to permit of his having the right sense and feeling for what he can demand at any given moment. The establishment of the great head-quarters upon the scene of action leads to the result that they remain with their plans upon the soil of reality.

It is also certainly advantageous that the supreme command of an army should, on marches and in over-crowded quarters, feel a little of those hardships of war which the troops drain to the dregs. That prevents them from giving commands incapable of fulfilment, and will oftentimes reduce to its proper measure the fear of an impediment that in the distance looks greater than when viewed close by.

The same thing is true of the battle itself as of the conduct of great operations. High-placed commanders are rightly warned not to come too near to the line of battle. A proper measure of distance must here also be kept.

Clausewitz has left us, in the second volume of his work upon war, an excellent sketch of the nature of the different zones which surround the arena of action, which runs as follows: "If we accompany a novice to the battle-field, as we approach it the ever louder roar of the artillery alternates with the howling of the bullets, which now attract the attention of the inexperienced to it. The balls begin to strike into the ground before and behind us. We hurry to the hill upon which the commanding general, with his numerous staff, is posted. Here the falling of cannon-balls and the bursting of shells is so frequent that the seriousness of life pervades the youthful enthusiast. All at once a friend falls —a shell bursts into a knot of men, and produces involuntary emotions. We begin to feel that we are no longer perfectly calm

and collected. The bravest among us is, at all events, somewhat absent-minded. Now let us step into the battle which rages before us, almost like a play, and go to the nearest general of division. Here ball follows ball, and the noise of our own artillery increases the confusion. From the general of division to the general of brigade. This man, of well-known bravery, keeps carefully behind a hill or behind trees, a certain sign of increasing danger. The shrapnels rattle in roofs and fields, cannon-balls whistle in all directions by us and above us, and the frequent whistling of bullets is heard. A step further to the troops, to the infantry, that has undergone a hot fire of hours' duration with indescribable endurance. Here the air is teeming with hissing bullets, which make known their presence by the short sharp sound with which they fly an inch off ear, head and life. Compassion at the sight of the wounded and fallen beats with anguish at our throbbing heart."

This sketch is, in these days, only too true; only, in consequence of the greater range of modern fire-arms, the zones are considerably broader. The increased precision of fire has made also the impressions greater. With the shocks and sheaves of our weapons of precision, the thickest rain of bullets of olden times cannot for one moment compare.

There are, as we have already stated, only very few men upon whom danger makes no impression. Clausewitz says that the novice would not enter any one of the zones without feeling that the light of thoughts is here set in motion by other means, and is broken into other rays, than it is in mere speculative activity. If the impression of danger does gradually become blunted, yet there still remains something of it, as a rule, even in the most experienced soldier. The deeper he plunges into the fight, the more rapidly does his pulse beat, and the more hastily though less clearly does he think, and the more are his thoughts interrupted by contemplations, which centre in his own person and in the end that may possibly await him. The man has not here anything more valuable to lose than his earthly existence, and he takes a lively interest in its possession. The more that clear-sightedness and intellectual influence upon the course of a battle is demanded of a general, the more must he keep himself out of serious danger to life and limb. For the commander-in-chief, a station is the best

from which he can survey the lines of march of his advancing columns, as well as the enemy's line of battle. Such places are frequently only found at a great distance off, where one is completely beyond the range of fire; but it would be an entirely false pride to abandon them for this reason. By displaying contempt for death, a commander-in-chief can often not effect more than can any subordinate officer; but by clearness and cool deliberation in his decisions, he will, on the other hand, be the benefactor of hundreds and thousands.

During the battle of Noisseville, on the 31st August and the 1st September, the head-quarters of the beleaguering army around Metz were stationed upon the Horimont, a precipitous spur on the left bank of the Moselle, about two miles as the crow flies, and three by road from the field of battle. Originally it was only intended to make from there a survey, for which purpose the excellent telescope of the station was very useful. But it was quickly perceived that no other position was so well suited for the commander-in-chief and his staff during the battle that was now beginning as this, and the commander-in-chief remained there with his staff, whilst single officers were, as need required, sent down into the battle-field.

Like a panorama, the whole country about Metz lay at the foot of the Horimont, with the clustering houses of the city and its suburbs, the fortifications, and the French encampments. All the movements of the enemy across the valley could be clearly seen, the march up of the French army into position, its deploying, and its advance to the attack. In the same way the progress of the German columns that were advancing to the field of battle, could also be followed, and a marvellous insight gained into the position of both sides, like an umpire has at "Kriegspiel." Not only the position of the battle could be discerned, it could be also determined what precautions should be adopted beforehand to meet the measures taken by the enemy. Therefore it is that this battle displays an extraordinarily happy co-operation between the supreme command of the collective forces and the individual activity of the several commanding generals upon the field of battle.

Prince Frederick Charles, the commander-in-chief, intended to leave General Von Manteuffel, who was fighting at Noisseville, the undiminished honour of the victory; but even apart from this

personal reason, his position upon the Horimont would have been perfectly correct. If the lofty station of observation had been abandoned, the *ober-kommando* would have not only at once lost the survey—and at the same time its telegraphic communication—but, during the ride of a mile, its activity would have been interrupted.

A change of station, during a battle, is of itself productive of great inconvenience. It entails that reports go astray; under-commanders, who look for the commander-in-chief, do not find him, or only find him when it is too late. A point, from which all the lines of the army and all portions of the battle-field can be simultaneously surveyed, is for the supreme commander of such great value, and can so seldom be found, that it should not be relinquished without the most urgent reasons, even though details are, owing to the great distance, withdrawn from view. If the course of events changes, and the crisis takes place elsewhere to what was expected, the first position certainly loses, for the most part, its importance. It must be changed at the right time. For instance, in the battle before Metz of the 31st August and the 1st of September, this would have been the case if the battle had moved away from the fortifications, and the attempt of Marshal Bazaine to cut his way through had succeeded. Prince Frederick Charles would not then have hesitated to have proceeded to the new scene of action.*

On a smaller scale the reasons for the choice of position change. The general in command of an army corps will only behave like the commander-in-chief if he finds himself in a similar position—that is, if he is acting independently with his army corps. If this only forms a link of the line of battle, a more prompt interference with the dispositions of the battle, and accordingly a closer prospect of the whole, is essential. Further down to the commanders of

* The signal for this would probably have been the silence of the French batteries. From the fact that the forts on the east side of Metz were unceasingly engaged in the struggle, it was possible, from the Horimont, to perceive that the battle was not moving from its place, but was surging only within its original lines. In the lines of smoke, which were plainly visible, its extent towards the wings could be exactly determined. Not so the advancing and retiring of the front, because, from where the German commander-in-chief was stationed, the French were seen fighting on the south side of the valley, and only beyond this, again, were the German lines visible.

divisions, brigades, and regiments, the demand made upon them to remain closer to the action and the danger increases; for the reasons for their having a distant view diminish, whilst those for their taking rapid and decisive action, according to the impulse of the moment, increase. The immediateness of impressions is here even the fruitful spring of activity. The subaltern officer, finally, dashes into fire at the head of his company, and fires them by his example.

As is always the case in war, here also circumstances decide. But we must, at all events, make it clear that a fit choice of a place of observation is a very material factor of success in generalship. It would be a mistake to under-estimate the importance of this apparently purely external moment.

SECTION III.

THE CONDITIONS OF SUCCESS IN WAR.

We should do strategy the best service could we but enumerate the conditions precedent to success in war; but, unfortunately, we should never come to an end. We are only in a condition to bring into prominence some of the most important ones.

Among them *one* may first be mentioned which, as a rule, is very unsympathetic to soldiers, that is politics.

Blucher wrote at the time of the Congress of Vienna: "All ye politicians are bad knowers of men: the good Vienna Congress is like a fair in a small town, whither everyone drives his cattle, either for sale or exchange. We have brought here a first-rate bull, and have got in exchange only a miserable cow, so say the Berliners." The old hero, from sheer vexation about "politicians," wanted to take his leave of the army forthwith; but at that time his wrath did not alter one tittle in the great *rôle* which politics play in all matters appertaining to war.

War is the continuation of politics with weapons in hand; hence its influence even upon the manner of waging war. If this influence be blamed, it were more correct to blame politics. A bad policy will, of course, have a bad effect upon war.

We must not, of course, conceive of politics in the narrow sense of the term, and only understand by it what we commonly call external politics. Internal politics are quite as material. We will, accordingly, take the word "policy" in its widest meaning.

Upon policy the whole condition, the feeling, the constitution,

and the moral and physical affairs of a state depend; and upon these depends, again, the waging of war.

Clausewitz says: "The enormous effects of the French Revolution are, it is evident, to be sought much less in the new means and ideas of the French mode of waging war, than in the altered science of State policy and administration, in the character of the Government, and in the condition of the people, &c. That the other Governments saw all these things incorrectly, that they with ordinary means wished to hold their own with forces that were new and crushing—that was all mistaken policy."

It was a mistake of policy that Prussia did not, in the year 1805, when backed up by powerful allies, appear with a numerous and well-equipped army upon the theatre of war to speak the decisive word. Though some faults still adhered to its military system, its general constitution was at that time so capable that, had it made an intelligent use of its forces, success would scarcely have been in doubt. But a mistaken policy not merely left these advantages unemployed, but its evil effects went even further. The best and the most clear-headed men in the Prussian army had certainly reckoned that at last an end would be put to the eternal waverings of the period of neutrality, and that Prussia would at last appear as an actor upon the stage of the world. Therefore, when nothing came of it, the disappointment was more disheartening than at any other previous time. A feeling of despair, a feeling of shame and hopelessness, took possession of many hearts. A feeling spread in the army that they should now fight for the sake of honour. The consciousness of having neglected the best opportunities increased the disquietude of the Prussian military party, and at last brought it about that, at an immature time in 1806, it broke loose. A similar fate was that of France in 1870. The opinion that in 1866 a golden opportunity for consolidating afresh the prestige of France in the whole of Europe had been irretrievably lost, aroused the national pride, the restlessness of which drove Napoleon III., after a vain attempt to hush it in 1867, into the decisive struggle at an ill-starred hour. Prussia in 1806, and France in 1870—two episodes in the history of neglected political opportunities—prove to us unerringly the influence politics exercise upon war.

In like manner that, in 1806, Prussia entered upon the struggle for existence with its ordinary military organisation, which had been kept prepared for former war-purposes, whilst the people should remain in their normal condition, should look on and not be excited, was an error of policy. That system could, at all events, be regarded as sufficient to ward off the first shock of the French active army, that was at the moment collected in Germany, but not the storm of the unfettered national energy of France. Politics had placed most unusual means at the disposal of France, and thereby rendered possible a display of energy in waging war otherwise inconceivable. The first step of the Prussian State ought to have been to make enormous levies. But for this purpose it was necessary that politics should, a considerable time before the war, have brought the nation into a condition that would have allowed of the employment of all its forces in war.

Clausewitz has most aptly explained the relations obtaining between policy and war.* In these days more extended points of view are concerned. War has not withdrawn itself from the effects of politics; yet its influence is modified in comparison with former times. Clausewitz may talk of wars, such as the wars of coalition, or the Austrian War of Succession, when the Allied Powers bound themselves to support one another with a definite number of combatants, when operations were undertaken with a part and not with the whole of the forces, and policy alone stood in the foreground, but we, in these days, can disregard all this. Such conditions are scarcely conceivable in our modern Europe. Even the attempt of Russia to crush its much weaker opponent, Turkey, in 1877, with *a portion* of its forces, completely failed. Campaigns like the German-Danish campaign of 1864, or that of the English in Egypt, in which an expeditionary corps was sufficient to bring to reason a weak but defiant enemy, we regard as military executions. They can only excite our interest in a small degree. The principles of waging war in these days must be explained by great national wars. If two European Powers of the first order clash together, their whole organised forces will, from the outset, be set in motion to decide their quarrel. All political considerations,

* *Von Kriege*, vol. iii. book viii. chap. vi. Cf. also Blume, *Strategie* (Berlin, 1882), p. 25.

such as attach to the lukewarm half-ness of wars of alliance, fall to the ground; and even then there is still enough to consider.

The causes of wars are of a political nature. We have already set forth that wars are only possible for the protection of great political interests. These interests sometimes certainly assume an extraordinary appearance. A breach between nations is apparently due to a mere nothing. In 1877 the world might easily have witnessed the drama of a bloody struggle for a question of quite subordinate importance. The candidature of a Hohenzollern for the throne in Madrid was no sufficient reason for two nations like the German and the French to array themselves one against the other in mortal combat. In all such cases, however, it is the fact that the apparent motive is really only a pretext for the political antagonism which has arisen from protracted irritation.

In a certain sense, we approach an original state of nature, when wars between neighbours were only the result of enmity; but this is the difference which obtains now, namely, that the enmity is not a purely instinctive one, but springs from the collision of ideal interests, to which both power and respect in a prominent degree belong. Both are political moments. Further, politics determine the way in which war shall be begun. Had our policy been wavering, we might, instead of the events of 1866, conceive of a struggle between Austria and Prussia, in which the latter allows itself to be driven, and keeps on the defensive, in order not to be forced to surrender Schleswig, where, in consequence, armies were drawn up to defend it, and where, if Austria's conduct inspired confidence, not only Lesser Germany but France also would take part in the struggle. A similar state of affairs may be conceived of as happening in 1870. How different a course warlike events would thereafter have taken is easy to calculate.

Policy, again, regulates the relations not merely of those States immediately concerned, but also those of such as are indirectly interested in the final issue. Their favour or disfavour may be of very great significance, impeding the course of events, or promoting them. Politics, again, as a rule, determine the moment for the outbreak of hostilities, upon the happy choice of which much

depends. They, in short, create the *general situation, in which the State enters into the struggle,* and this will be of material influence upon the decisions and attitude of the commander-in-chief, and even upon the general *esprit* of the army.

In the face of the great weight of warlike events in our modern times, politics retreat more and more into the background, so soon as the cannon thunder. In the wars of the previous century the Powers, even when open hostilities had already commenced, almost always retained a portion of their armies in their hand for engagement elsewhere, and politics decided whether the stake should be increased or not.* Now from the very outset everything is staked, and the lot of war falls as destiny wills.

Politics regain their influence only so soon as it is felt that, in the case of one of the belligerents, the desire for peace begins to prevail over his desire for continuing the struggle, and that all hope of the success of his arms is dying away. It will then be for politics to bring about a *rapprochement* under which both parties can arrive at an understanding respecting the end of the struggle. The influence of third Powers, too, must not be lost sight of. It frequently determines how far the victor may proceed in his demands, and how far and to what extent the vanquished must give way.

In the last stages of a war, when the issue and decision by arms is no longer doubtful, the *military* element naturally makes way more and more for the *political.* The effect of politics frequently makes itself immediately felt in the decisions of the commander-in-chief. Political considerations may, under certain circumstances, bring about a battle which, although no longer necessary from a purely military point of view, is regarded on the one side as a last attempt, and on the other as final means of coercion. One of the belligerents, perchance, does not desire this final decision for its own sake. A weak Government requires it in order to explain to its own people the necessity for peace, even when it had no longer hopes of victory. What marvellous fruits the interference of politics at the end of a war may bring forth, was seen in 1871,

* The diplomatic intercourse between hostile parties even still continued; for example, the English Minister in St. Petersburg was not recalled during the whole of the Seven Years War

when an armistice was concluded, whilst on another part of the theatre of war the struggle was still being carried on; just like two fencers who have been separated before their courage has cooled down.

War serves politics both before and after. War waged only for annihilation and destruction is in these days inconceivable. A end and aim that is of permanent value to the State, be it only a question of ascendancy, must be existent; and this can only arise from political considerations.

The object of a war is of such importance and will be of such lasting effect upon the exertions which nations make to attain it, that we ought, almost on that account alone, to place policy first among conditions of success. Now, as we have here pointed out, many motives are also attendant, and thus we may without hesitation lay down a maxim that *without a good policy a successful war is not probable.*

War will, on that account, be in no way degraded in importance nor restricted in its independence, if only the commander-in-chief and the leading statesmen are both clear that war, under all circumstances, serves politics *best by completely defeating the enemy.* By attention paid to this maxim, not only is the greatest liberty assured to politics, but, at the same time, the widest scope is allowed in the employment of the combative forces.

How heartily politics and war ought to co-operate is manifest. This also leads us again to the conviction that that State is best situated when commander-in-chief and statesman are united in the person of a great king.

We have already said that every good military organisation has a definite national character. The same is also true of the energy of the general and his troops. The writer upon strategy and tactics ought not to omit treating of *national* strategy and tactics; for only these latter can be of real service to his nation.

Like the individual who, as a rule, only achieves something great in life if he comes to his right position, so also must armies be in their proper element in order to show themselves in their best light. The Prussian Grenadiers, who without dismay advanced in parade-step up to the enemy's batteries, lost at Jena their presence of mind, when they saw themselves confronted

by French *tirailleurs*, whose fire they could not resist. Napoleon's armies, which marched victorious through the heart of Europe, could not suppress the Spanish insurrection. Our infantry, which advanced victoriously through the rain of the French *tirailleur* fire and performed the most difficult feats which have in modern times ever been demanded of troops, would, if transplanted to the theatre of war in Acheen, Ashanti, or Zululand, most probably require, at first, some experience in order to be complete masters of the situation.

Our modern German mode of battle aims at being entirely a final struggle, which we conceive of as being inseparable from an unsparing offensive. An offensive idea is tacitly at the root of theoretical speculation, and, for the most part, of all practice also. Temporising, waiting, and a calm defensive, are very unsympathetic to our nature. Our corps of officers are trained to spontaneous activity, to take the initiative, and to aim at positive successes. Everything with us is action. Our strength lies in great decisions upon the battle-field. In the year 1870 there were combined in the nature of the country, as well as in the nature of our own forces and those of the enemy, all the conditions precedent to such a mode of operation, and hence our brilliant successes. Whenever we meet with a similar state of things again, we shall, at all times, in the future also achieve more than if doomed to long waiting in the field and camp, or driven to drag on a resultless defensive.

Turks and Spaniards, in modern times, have displayed most heroic and obstinate defence behind walls and ramparts, and every army boasts of its own peculiarities according to its traditions, training, and mode of life, and the special sphere in which it is especially at home. If it is compelled to relinquish it, its serviceableness is, as a rule, gone. The improvised armies of the French September Republic of 1870, displayed a right respectable resistance behind hedgerows, plantations, hills, and forests on the Sarthe; but in open attack upon our position on the Lisaine they effected but little. They were distinctly not made for the offensive, which was forced upon them by higher authorities and the consideration paid to Paris.

The feeling of not being quite in one's element, and having to

combat unusual difficulties and unknown impediments, has quite as prejudicial effect upon troops as upon individual men. We must, therefore, count among conditions of success the fact that a *rôle* must be assigned to an army which suits its peculiarities. The commander-in-chief has not always that to give, but he ought to make it his aim, where circumstances possibly permit, to give effect, to the utmost extent, to the *national mode of fighting*, whether it be bound up with some material disadvantages or not.

An important condition for the happy issue of a war is a good *internal disposition* of the army. Every regiment brings into the field with it a certain character of its own. But it may, in spite of this, display great deviations from it, and be the slave of unintelligible paroxysms. Discipline does not exercise an absolute power over internal emotions, effects of fright and disaster, or singularly unfavourable coincidences. We could as little strike the word "panic" out of a military work as heroism or contempt of death.

The will to conquer is, in the case of the commander-in-chief, as also in that of his troops, of paramount importance. Victory and defeat are not separated so widely from each other as success or failure in an examination. The line between the two is very variable. Those troops which will not retire from the ground that is their battle-field are at last regarded as victorious, even though the greater material losses are on their side. In this obstinate will to remain victors is, for the most part, seen the spirit that animates the army. The impressions of the life of peace and of war that have preceded, here co-operate to produce a great moral exertion. The pride and the self-consciousness of the army, founded upon good traditions and successful generalship, secure success even under the most trying circumstances.

Besides these moral factors, material ones are also essential. A happy equilibrium in respect of both keeps the capacity to perform exploits longest alive, and this best guarantees a successful issue.

One of the most important of the material conditions is, at all events, a sufficient *number of warriors*. He who has a numerical superiority has, at all events, the first right to expect success.

A French proverb says, *Le Bon Dieu est toujours avec les gros escadrons*, and history teaches us the same. In these modern times, when a shock does not, as it did at the time of "line-tactics," decide the day, but when the forces mutually consume each other in a constant struggle, a sufficient number of troops is of double importance. A superfluity of numbers guarantees the possibility of holding the enemy in check with equal forces, and then with the rest, that are not confronted by him, of proceeding, without more ado, to his destruction.

A clever strategist will often understand how to paralyse the whole force of the enemy with a smaller portion of his own troops, either deceiving him by boldness as to his strength, or by inducing him to attempt a very difficult feat, and one that requires much strength. And then, where the number of warriors is on both sides only equal, the surplus may be utilised at a decisive point which brings in good interest, whilst the enemy has put out his capital to bad interest. Economy must here be practised. We exercise, in such a case, a wise *economy of our forces*, in which a new condition of success is assured. It can partially, if not entirely, replace a deficiency of resources. When we speak of the importance of numbers in war we do not, of course, compare a large and bad army with a small good one, but always two armies which are equally balanced in point of efficiency. That numbers can only equalise deficient efficiency in a certain proportion, is a matter of course; and we would not speak of it unless the theory of the value of numbers was not, as a rule, opposed by the maxim that not numbers, but the spirit animating an army, is its strength. In the winter campaign of 1870–71 we were shown that even a three-fold numerical superiority, composed of young undisciplined troops of the French Republic, was not sufficient to counterbalance the greater military efficiency of the Germans. Brave but deficiently organised and trained troops, when engaged in a struggle with well-disciplined ones, gain in weakness from the unwieldiness arising from their numbers. Dissimilar things can never be brought into arithmetical comparison, and no sensible man, on seeing three rams confronted by a lion, would speak of the superiority of the first.

From the circumstance that Frederick the Great at Kolin could not succeed with 30,000 men against 50,000 Austrians, nor Napo-

leon at Leipzig with 160,000 men against 280,000 allies, Clausewitz draws the conclusion that in our modern Europe it is very hard even for the most determined general to wrest the victory from an enemy of double his strength. "If we see the double number of warriors place their weight in the scale against the shrewdest generals, we must not doubt that, in ordinary cases, both in great and small engagements, a considerable superiority, which need not, however, exceed the double, would be sufficient to ensure victory, no matter how disadvantageous such circumstances may be. Of course we can conceive of a pass, where ten times the numbers would not be sufficient to succeed; but in such a case we cannot speak of a battle at all."

The mode of fighting has since that time wrought no change in this respect, and we must even to-day take Clausewitz's computation as correct.

Hence proceeds, therefore, the first principle of modern strategy; *to show oneself, at the critical point, as strong as possible.* To dispute the value of numbers is equivalent to denying this universally recognised principle.

Armament, in like manner, contributes very materially to success. The bravest soldiers with lances and swords could effect little against breech-loaders and rifled cannon. There can certainly never be a complete disproportion between armaments and behaviour of an army, because in the latter there is intelligence, which takes the place of good weapons. But untimely parsimony, technical mistakes, or obstinacy and false pride, which will not allow a weapon once declared to be good to be discarded, may, considering the rapid progress of our times, be productive of considerable inequalities. An armament corresponding to all the demands of the times is, on that account, all the more important, because the want of it immediately re-acts upon the *confidence* of the soldier. Nothing is worse than when he feels himself neglected in this respect and believes himself, without his own fault, obliged to succumb to a fire which he cannot resist. A defeat appears thus excusable, and success cannot be worse damaged than by this feeling. Of course we include, when dealing with weapons, an understanding of their proper use, otherwise the effect would not correspond with the value of the machine.

Forms of fighting are also of great importance. By force of habit they enter into the flesh and blood of soldiers; and if they fail when used in serious earnest, they cause more despondency than ought to be permitted to such motives. Forms of fighting are laid down by the *Reglements*. It is accordingly necessary that in them practicability should be the first essential. If only considerations of the "beauty" of military dramas, or a consideration of a faithful preservation of what is traditional prevail, the troops will, after their first experience of war, lose confidence and feel themselves insecure.

As we have now spoken of wealth of combatants and resources, we must now, in justice, allow of *wealth generally* being considered to be a condition of success.

To war belongs money, money and once more money. Our modern wars, with their principle of the unreserved use of all available resources, are not conceivable apart from the modern mode of raising money by loans. The army of a Great Power upon a war-footing costs each day from one and a half to two million "thalers." No State in the world is rich enough to store up a treasure which could for many years in succession pay for its maintenance. This can only be done by its credit. On the other side, one may say, with a certain show of justice, that so long as a State possesses credit, its defeat is not final. If Germany puts its whole organised defensive force in the field, it has about one and a half million men under arms out of a population of forty-six million souls. There remain always many behind in the country, who, in the case of necessity, could bear arms to defend their fatherland.* Similar is the ratio in the case of the other Great Powers, and we may assume that the material resources at the disposal of the executive power will sooner be exhausted than human forces. Whoever has weapons and money is not, as a rule, defenceless.

A very valuable pledge of final success is possessed by the party that can continue a campaign for great length of time.

Money will not of itself alone be decisive, but the greater

* Scharnhorst takes every fifteenth soul as a warrior, and states that the Kürfuerstenthum Hannover had even in the year 1759 every fifteenth man in the country in the field, and, in spite of this, kept its regiments up to their full strength until 1762. According to this ratio, Germany must now possess more than three million combatants.

ease or difficulty of making use of it will. States which, in the event of war, have the sea open to them, have at the disposal of their credit quite different channels to those whose harbours have been blockaded. The former are in a position to make use of foreign industry for equipping new armies. Without these resources the Government of National Defence in the last Franco-German war would never have raised the great masses of troops by which it astonished the world. Had Napoleon been in a similar situation in 1814, the course of the war would have been different. The Southern States, in the American War of Secession, succumbed in spite of their greater military skill and efficiency, directly their transmaritime traffic was cut off from them. The rule of the waves is, therefore, immediately productive of a greater strength, even when the fleets are not in a position to support directly the operations of the land forces.

If wealth gives great strength it will, all the same, only be fruitful if the people are willing to make sacrifices betimes. That sacrifices made late are not able to retrieve what has been neglected at the proper time, was taught Carthage by the fate of Hannibal, and it paid for its error with the loss of its freedom. Material and ethical motives work here also in concert, motives which can never be separated in the operations of war.

Now, in conclusion, all those conditions of success ought to be stated which are to be sought in the practical employment of the combatant forces. They will, however, be best explained in the following chapter, when treating of the various phases of evolutions and battle.

SECTION IV.

EVOLUTIONS AND BATTLE.

1.—*General Remarks.*

Evolutions and battle are, in these days, still judged of by the light of the victorious campaigns of 1866, 1870, and 1871; for the Russo-Turkish war of 1877–1878 was waged under extraordinary circumstances. Owing to the nature of the theatre of hostilities, and the bad communications between it and the base of operations, as well as to the insufficient preparations made by both sides, there were phenomena met with in the Balkan peninsula as well as in Armenia, which remind us of far older stages in the development of war. Protracted waiting in strong positions, combined with operations against the enemy's rear lines of communication, recall to us the time and period of the Seven Years' War.

As it could be perceived at the first glance that the frequent halting and the disconnected nature of the operations were produced here by special causes, so does there still live in our conception of a future campaign the picture of rapidly-progressing operations, the idea of decisions upon a battle-field following one another uninterruptedly, and of a rapid penetration deep into the heart of the enemy's country, as well as of a rapidly resulting and propitious peace. Such was the case in 1866, and so also it was in 1870; and thus do we hope it will be in the future.

The principles are therein expressed according to which good leadership should always aim at ending each new war. This does not, however, necessitate that its external form should again be the old one. In spite of all circumspection on the part of the

generals on the Prussian side, the war in 1866 would perhaps have taken another course, had they not been supported by the greater internal efficiency of their troops, as well as by the superiority of their weapons. In the year 1870, in the first period of the war, our superiority in numbers, and in the second period the small efficiency of the enemy's armies, were of extraordinary assistance to us. Operations like the attack upon the lines of Amanvillers on the 18th August 1870, could not have been brought to such a successful issue as was the case, had not 200,000 Germans been opposed to 130,000 French. The defence of the position behind the Lisaine and Allaine, four German miles in extent, which General Von Werder took in order to protect the besieging army before Belfort, would not have been attempted with 40,000 men against a three-fold superiority in numbers, had these latter consisted of good troops. It was only because the defenders had to deal with an improvised army of the enemy that the undertaking was rendered possible.

At the present day France, Austria, Italy, and Russia have eagerly followed the lead of Germany with regard to the training of their soldiers. The internal efficiency of the troops of all nations will tend each day to become more equalised, and at last they will attain a like *niveau*, though this at the moment may be a good way off.

Before 1866 it was difficult to form a correct estimate of the Prussian army and its actual strength, for it had been trained in quiet and secret exercise in the barrack-yards, on the exercise ground, and field of manœuvres. Two mighty wars have now convinced the world, and have made it familiar with the advantages possessed by our military system, which they had formerly not perceived. We shall not a second time surprise them with it, but shall find them prepared for the peculiarities of our mode of fighting. Yet it is very surprising that in France, in spite of manifold imitations of German institutions, no one appears to think of waging a future war in the way in which we latterly did it; they apparently intend to go their own way.

The obstinacy of resistance, and the wealth and resources on the part of the defender, can, under certain circumstances, paralyse even the boldest and most energetic attack. An obstinate defence,

prepared at great expense of science and practical organization, it is, accordingly, to which our former enemies have directed their attention. From a French book, which appeared a few years back, treating of the war of the future, we extract these words: "As yet we French are not strong enough to vanquish the Germans in their own land, but we shall defeat them with ease in our territory." We have pointed to the new building of fortifications in France in the last decade. The eastern frontier has been provided with a belt of forts and strongholds, which only show but few gaps, and these can easily be explained by certain military intentions. The problem of closing all roads upon which it would be possible to penetrate into the country from the east and north-east has been almost solved.

Now, we do not desire Germany to follow suit in these innovations, out of consideration for the expense and the weakness which would be entailed upon the army by having to detach garrisons from the army. However, other Powers, to whom the defensive is more necessary, and who are richer than we are, may aptly take such precautions for their protection.

In ancient times we find an analogy for this. It lies in the frontier fortifications of the Romans, the value of which was seen for centuries. Such phenomena are wont to recur because the secret internal causes are the same. The actual effect of every systematic fortification of a country is this, that it deprives strategy altogether of its mobility; not that it only gives the engineer an opportunity of thrusting himself more than hitherto into the foreground. We know how much an army requires in order to live and to be provided with all necessaries, especially ammunition. It is not so necessary for the armies themselves, as for their system of commissariat, that the principal roads and railways should be kept open. A Franco-German war in the present day would accordingly begin with a number of battles around fortifications. If the girdle of forts on the frontier were broken through, a chain of fortified encampments would lend new support to the defence, and again hinder the mobility of the assailant. The latter, with his rear lines of communication, is bound to the point where he has broken through, and that would be of more moment, because at the same time the slow progress

of the armies renders it difficult for them to live from the supplies of the theatre of war. In a report which the French General de Rivière made to the Legislatif Body, touching the new building of fortifications on the frontier, he declared that, in a future war, it was their intention to compel the Germans to take a definite direction on their march into the country. It has accordingly, on the French side, not only been perceived that the principal superiority of the Germans lay in their *war of movements*, but that it is difficult for France to catch us up quickly enough in it, because this would require an express training and education on the part of all her generals. Initiative and independence play here the greatest part, and these will not permit of being inoculated into a person in a short time, but require the labour of years; and so they determined to renounce them, and to deprive the Germans of their element; barring roads and bridges by impregnable forts and forcing upon them a battle within a narrow space.

As to the best way of overcoming these new impediments, opinions will be widely divergent, so long as they have not been put to a practical test. One favours a defensive on the Rhine, in order not to come too near to the prickly necklace of the hill forts. A second is for storming; that is, passing over the troublesome paragraphs, and simply proceeding to the business of the day. A third would like to penetrate between the forts and leave the reserves in the rear to take them, in order thus to thrust aside the whole question. A fourth considers a short siege sufficient; a fifth holds a thorough siege to be absolutely necessary.

In truth, the means and method of attacking will vary according to the circumstances of the attacking army, and even according to the inclination of its leaders. Pauses in the operations, and interruptions in the advance must, at all events, ensue, and these do not only directly entail loss of time, but also allow the defender the possibility of bringing up reinforcements and so protracting the resistance; and thus there comes in a second element, necessitating delay. There is no doubt at all that war, where it has to reckon with such fortificatory works, will for a time be of a dilatory character.

In the East of Europe—although even there grand fortress works are spoken of—matters are at present different. Broad

plains lie open for the continuous march of military events. But the vast extent of the countries, and the little perfection of the network of railways, would be productive of similar phenomena; for instance, periodical halts, either until the rear communications are again restored, or until a better time of year has arrived for the resumption of operations. A war in the East, at all events, would not be decided in a single campaign, but only after a number of campaigns.*

If, accordingly, in a future war the leadership of our armies is just as circumspect, and the bravery of our soldiers and generals as great as hitherto, we must at the same time be perfectly alive to the fact that it will not be possible to conceive of a similarly rapid course, and of like fortunate and rapid results, as in 1866 and 1870. As King Frederick after the battle of Lowositz wrote to the bold Marshal Schwerin, "We do not find the old Austrian," so shall we, at the beginning of a future war, be obliged to confess, "We do not find our old foes more."

It is certainly profitable to make that clear to ourselves, in order that we may not enter upon a future war with false ideas. Disappointment would doubtless follow these illusions, and this might shock the confidence of the troops in the leadership, whilst the slow course of events is quite in the nature of things. The labour will, in the future, be, under all circumstances, more difficult, and the reward at first far scantier.

The element of mobility in war is, moreover, confronted by the enormous increase in the masses of troops. Millions cannot be tossed hither and thither like thousands. Before all, they cannot exist so easily as these, wherever they turn themselves; and their employment is dependent upon greater considerations.

Of the campaign of 1866, it has been recorded that each of the columns with which General Benedek marched from Moravia into Bohemia was not less than fifteen German miles long. It would accordingly, as the crow flies, extend from Berlin to Magdeburg, from Stuttgart to Anspach or Würzburg, and from Munich

* Properly speaking, therefore, it is only Germany that furnishes a suitable theatre for an energetic war to be brought rapidly to an issue. But it is, on that account, also our endeavour that it shall never again be the arena of war, but that it shall fight out all its quarrels outside its own frontiers.

to Regensburg; and yet, in comparison with modern numbers, it was not at all great. It consisted of three army corps and a division of cavalry, about 90,000 combatants, which do not play any great *rôle* in the numbers of the present. And it was in no way negligence in the troops that they extended so far. Our treatise upon the strength and composition of an army corps has, moreover, already taught us that a combatant army, like that referred to, actually requires fifteen miles of road to move along.

This instance presents us with a clear picture of the scale upon which things are done in modern wars; and the picture can be easily completed. Let us tentatively set the present German army in march upon a road. Of the cavalry divisions, which we here likewise place at the head, each is two-thirds of a German mile in length. Then come the army corps. Even if all the corps closed up in marching order, rank close on rank, and waggon after waggon, yet, in order to make secure, we should be obliged to cover 100 German miles for the whole eighteen. And then the numerous reserves, which march with them into the field, must also be taken into account. Besides these, there are the *ober-kommandos*, with their staffs and train; further, the army administration department, so far as it is not included in the army corps, and much more besides. To our astonishment, a computation of the whole together would show us that if the head of the column were marching into Mayence upon the Frankfort road, the last company would only just be leaving Eydtkuhnen, upon the Russian frontier. The whole military road from the Rhine to the Russian frontier would have been thickly crowded with soldiers, guns, and transports. If these were made to pass out through a single gateway, day and night, it would take a fortnight for all to pass through.

Such masses of troops, when collected, would, of course, fill whole provinces. The Austrian army of 1866 required almost the whole of the Margraviate of Moravia to quarter it, and the troops that were quartered farthest south had to make nine successive marches before they reached the leaders. In the year 1870, ten German army corps, collected on the Rhine, covered 120 square miles of a very fruitful country. For the whole of our present German army more than 200 square miles of country would be

required, in order to quarter them, even though every place were full of troops.

Enormous, too, would be the front which the gigantic armies of to-day would present were they developed in one single line. The French army would reach from Epinal to Verdun. The individual regiments would in no way be loosely ranged behind one another, but would, as no inconsiderable tracts of country are occupied by fortifications, be pressed fairly closely together. The attacker would, accordingly, scarcely find space for rapid and surprising evolutions, for flank movements and unexpected attacks. Only the preliminary battles, which deceive as to real intentions and cause the enemy to collect either here or there, and to relinquish certain portions of his line, bring the necessary freedom of action. It is sufficient to present to our minds these dimensions, that sound almost incredible, in order clearly to conceive that, especially for the first phases of war, the element of mobility must be small.

Splitting up into different armies, reserves, and distinct groups for the accomplishment of subordinate tasks, remedies the evil to some extent; but the individual portions are still great and unwieldy enough.

If we take the armies in that composition which we have recognised as being practical, the strongest would then consist of six army corps and three divisions of cavalry. If, when this army was assembled on the theatre of war, a portion of the troops—that is to say, two corps—were to be taken as a support, and planted behind the front, and another portion, perhaps a cavalry division, were detached on other service, there would still be left four army corps for the first line of battle. Each army corps requires, in order to develop itself properly, a good half a German mile of space.*

This measure was confirmed by the experience of the great battles in the French war. According to these, each individual army of the greatest strength ought to have two German miles

* *Blume on Strategy*, pages 161-62, takes the normal fighting-breadth of an infantry battalion at about 200, of a cavalry regiment at about 300, of a battery at 190, of artillery and infantry at about 400, of a corps of artillery at, at least, 700; the whole of the artillery and cavalry of an army corps at more than 1,500 mètres; whence would result, for an infantry division, 1,500 mètres, and for an army corps 4,000 mètres normal front.

of front; but upon the wings the line of battle is somewhat looser Commanding points which lie on the side are drawn into the position. The cavalry divisions show freer action, being pushed out beyond the wings right and left; if they, too, are reckoned, the front is considerably wider. The artillery of the corps in reserve will, in the main, be also drawn into the line of battle, and this, again, causes this line to extend still more. But, of course, the strength of an army in the course of the war diminishes by losses on the march and in battle; but that only affects the infantry, the lines of artillery remain almost always the same.*

The two and a half miles (German) of front line for our greatest, and half of this for the smallest armies, consisting of three army corps and one to two divisions of cavalry, appears, under all circumstances, to be a right proportion. On the 18th August 1870, the 7th, 8th, and 9th corps of Guards, and the Saxon army-corps fought side by side on an extent of two miles (German). Into this line were pushed, certainly, on the evening of the day, the second parts of the 3rd and 10th German army corps; yet the ranks were so thinned in the front by losses and diminution of all sorts, that room was made quite naturally. But days of battle when the troops are unusually closely pressed together are exceptions. Never at any other time, not even in the closest bivouac, are the army corps ever so near each other. Woods, meadows, bogs, and water are excluded, just as are the parts swept by the fire of the enemy's fortifications; and thus, as a matter of fact, the sphere of the theatre of war may, under certain circumstances, be inconveniently restricted. The Franco-German frontier has, for example, only just room enough to enable the two armies to develop themselves properly.

Though the principles of modern warfare may demand the most rapid decisions, and though, perhaps, these principles may, immediately after the outbreak of the struggle, lead at once to bloody battles, it is yet probable that the whole result will show itself as a severe struggle, in which the combating armies, if followed on the map, either move but little from the spot, or, in comparison

* Some losses in guns, which cannot be immediately replaced, may happen; but considering the great number of the artillery taken into the field, they are of little moment.

to the spaces to be covered, make but very insignificant progress. Only when, after the greatest exertions have been made on both sides, a crisis supervenes, and is followed on the one side by inevitable exhaustion, do events begin to move more rapidly. *Certain it is that a war in the immediate future must lose much of the mobility which was peculiar to our last campaign.*

The picture of the gigantic combatant masses will, at the same time, explain the statement that the duties of the supreme command of an army have become more thorny than they ever were; with such columns on the march, such tracts of country and such fronts, many things must naturally be withdrawn from the supreme control. Leadership finds them as they are, and must bow to the unchangeable. The cheap critical wisdom, that so easily finds what has been done *inconceivable*, would be very reticent were it only for once to carry out in detail the sketch here referred to, and reflect what great difficulties must arise under the military conditions of modern days.

The telegraph, which connects the commander-in-chief in most cases with the troops under his command, may, it is true, overcome both time and space, but it cannot equalise diversities of views.

Owing to the fact that the masses of troops on the march must spread themselves in great breadth, the number of opportunities for an accidental collision of certain parts with the enemy increases. Whenever a battle results herefrom, the neighbouring troops rush from both sides to help. An issue takes place at a spot where it was not wanted, and in an hour when it was not expected; it therefore comes to pass, that, just in respect of what is most important in war, in regard to both action and battle, the supreme command is least of all free, and most of all dependent upon a foreign will, viz. upon accident. Almost regularly, in this respect, will it have to deal with *faits accomplis*, and find the battle already far advanced when it first receives news of it.

This small controlling power of the highest commanders as to when the tactical decision shall arise, is a particularly difficult element of modern warfare. The best intentions of the commander-in-chief are often baffled, and his most correct computations brought to nought.

It will be replied, that the will of the commander-in-chief is known to all his under-commanders, and that obedience must prevent such incompatibilities. But as it is impossible to command beforehand, or to forbid beforehand, everything in the field, the individual must act just where the ray of light illumines for a moment a part of the gloom. It would be the greatest evil that could possibly happen if generals and officers out of anxiety, for fear of going wrong, were always ready to wait to see what orders would be issued from the highest instance. All favourable opportunities must then be lost, and the enemy left the upper hand at the outset.

Yes, even in the few cases in which great decisions are known and provided for, as on the days of St. Privat and Sedan, even then it is only free to the commander-in-chief, for that specific battle, to bring the masses of troops upon the enemy in the direction in which they shall work. More than this there is but little for him to do, except to say, with Mark Antony,—

> Now let it work : Mischief, thou art afoot,
> Take thou what course thou wilt.

When six, eight, and ten army corps, with just as many hundreds of guns, fight between woods, rocks, hills, valleys and villages, and the smoke of the powder rolls in thick clouds over the combatants, the picture is too confined for a single eye to control exactly the progress of all events, so as to enable one will to be the sole ruling power. The course of a great battle, to conduct which is the most difficult task which can possibly fall to the lot of human genius, presents itself to us as being, more than operations are, the product of many wills and intelligences, to which the supreme control merely denotes the direction converging towards the ends to be attained.

2.—*The Importance of Discipline for Evolutions and Battle.*

He who presents to his mind the size of our modern armies, will ask himself how it is possible to lead such masses; the reply is, that discipline makes them moveable and guideable. There is no better solution of the problem. But the word "discipline" embraces so many interpretations, that its meaning appears not very definite and to need a more precise explanation.

By it is usually understood that discipline and order which is maintained by the punctual application of a strict law. Yet one must oppose to it the fact that strict laws, discipline, and order in no wise advance in like ratio. There have never been armies that were better disciplined than were the German during the late campaigns. In spite of that, there were applied the mildest laws with which great martial hosts ever at any time in history entered on the field of battle. These laws were, moreover, applied in the most humane manner against the offender. This fact is vouched for by many examples of ancient and modern history, when Draconic severity and want of discipline, each undiminished, went side by side for a long time. The French Republic of the 4th of September 1870 had a bullet ready for every disobedient soldier, and in their armies military executions were no extraordinary occurrences; yet, all the same, their discipline was, and remained, loose at bottom. The actual condition of things was a natural one. All laws arise primarily from the existing state of things, and only in later times re-act upon them.

But, on the other side, we must not believe that in a civilised people discipline is a matter of course, that it simply proceeds from a civil code of morals. For this the tests applied to it are too hard. In the army of a civilised people, crimes must, under all circumstances, be more rare than among the hosts of a rude tribe. But discipline demands more than mere negative services. She demands of the soldier that he stakes his life in order to vanquish the enemy, she expects from him something extraordinary, and she makes this extraordinary demand so familiar to him that he considers it unavoidable, and more than this—even natural.

The best explanation for discipline and its marvellous power is found in the saying of Darwin, contained in his *Descent of Man*: "The superiority which disciplined soldiers show over undisciplined masses is primarily the consequence of the confidence which each has in his comrades." This unconditional confidence is, beyond all doubt, the prime means by which discipline works, and it allows the peculiarity of that to be plainly perceived which we understand under this trite word.

First of all, a law is necessary which is rigorous enough to make the fulfiment of all higher commands appear something unavoid-

able; "The power of the passions cannot be restricted without the help of law," is a saying of Scharnhorst. Disobedience, whenever it shows itself, must be promptly and sufficiently punished. It would be a fatal illusion were we to consider the rigorous enforcement of the law to be something with which we could dispense. This is the skeleton for the building up of discipline. It is of permanent effect upon the troops that the necessity of obedience is brought home equally to both high and low in the army. Example is of far more effect than a written or a spoken word. As the soldier sees his superiors obey, so does he also follow their lead. Subservience to a superior, who commands something at the moment, is not everything. Before all else this obedience must be shown to the *service itself*. There cannot be aught more holy for the soldier than the requirements of his profession. Simple duties are more easily understood by the private soldier than by the higher.*

The seriousness with which, since old days in the German army, so-called small duty, "der kleine Dienst," is performed, is in no wise merely the result of tradition or unfruitful pedantry; it pursues the ethical aim of creating in the soldier an idea of his duty, in a manner best suited to his intellectual faculties. This faithfulness in what is little, must certainly not confine itself merely to military life on parade; but the many unapparent things which demand that the warrior shall be trained up like a man, deserve also, and are especially entitled to, notice. Enforced cleanliness, love of order, punctuality, carefulness, love of truth, and thorough reliability, all work most powerfully for the maintenance of discipline.

Hitherto the custom has been adhered to, that to the officers of regiments are assigned a part of the little administration duties; for example, the clothing and provisioning of the soldiery. Economical considerations are not here taken into account; the object is solely to make the intercourse between superiors and subordinates

* Hence the value of the institution that the officer, in our army, begins his career just like a private soldier. He must first learn to obey, in order to be able later to command; that is, in a correct manner, and in one that can be understood by the simple senses of the private man. Moreover he here learns the lowest duties, which are far removed from him later, but according to the understanding of which he is still materially judged of by his subordinates.

intimate, and to strengthen the influence of the first. Work in the clothing department, in the quarters of his soldiers, and in superintending cellar and kitchen, make the captain of a company the corner pillar of discipline, and the father of his troops; and it is a significant expression of a naive feeling, that the soldier prefers to call him "*Den Alten*," although he sees every day officers of greater age, rule, and command, in higher positions.

This peculiarity in the life of the German army has, besides the idea of the necessity of a faithful fulfilment of duty, produced a feeling of most perfect familiarity. Therein hitherto has been its strength. In common and serious work the most cordial relationship has arisen between officers and soldiers.

Every man in the ranks knows from experience that his officer does not, under any circumstances, leave the company in which he stands and that his company is like a family with the same interests, and that it will hold together like a family, dauntless in the hour of danger and distress. Thence springs that confidence of which Darwin speaks, and in which the great scientist of human nature finds the superiority of disciplined armies. With composure the soldier presents his breast to the bullets of the enemy, because he is convinced that his shoulder comrade does the same, and that his commanders are ahead of him, and he dare not leave them in the lurch.

This internal power, that is exercised by a feeling of relationship, lasts when the order produced by law fails, because the excitement and confusion of battle render control impossible. Duty and honour unite then in the heart of the soldier, in the firm resolve not to remain behind his fellows.

For this reason, in our late wars, each division of the army dared unhesitatingly to attack an enemy of superior numbers, whenever it appeared to be advantageous for the whole, or the moment offered a favourable opportunity. Every general who made a bold venture was sure that the corps nearest him would rush to his assistance as soon as they heard the cannon thunder, and that the work, as well begun by him, would be accomplished, in a case of necessity, by his fellows, if his own strength should not suffice. Down to the youngest officer, at the head of his battery, all commanders were able so to think and so to act. It is

apparent what an increase of strength thus accrued to the German army throughout. We can also conceive from this, how the supreme command, in spite of its limited influence upon the course of actions and battles, was yet enabled to enter into these issues with equal confidence. It knew full well that, although the ways were different, all the unfettered forces were striving in common zeal towards the one end, namely, to come up to the enemy. It might be convinced that no commander that was still able to reach it would remain away from the bloody struggle. The discipline of the German army guaranteed this.

This is accordingly really the means of making armies mobile. The more numerous they are, the more efficient must discipline be. We are accordingly more in need of it now than ever; but it must be correctly conceived of, if it is to prove itself strong. It must be identical with the complete community of all members in their ideal aims, in the fidelity of duty and devotion to their king and country.

If, accordingly, the basis for the good discipline of an army must be mainly looked for in the province of morals, yet, to maintain it, purely external moments must not be disregarded. We ignore the fact that intolerable conditions in times of war, exertions which exceed all human strength, the overpowering impressions of battle, and want and distress, can, at last, destroy the best discipline in the world, and that, before all things, objectless hardships and losses have a demoralising effect. Important conditions lie in organisation. The first is, that in war the ordinary bonds obtaining in peace shall find careful consideration. If these be rent asunder, discipline is, under all circumstances, injured; and the disadvantage which here arises, will almost always outweigh the advantages which a distribution into a greater number of unities could possibly bring.*

In the family life of our troops the tearing asunder of these bonds is especially impracticable. It lies in the internal constitution of our army, that every colonel places more confidence in, and exercises more influence upon, his *own* regiment and battalion, and

* It is known how much the discipline in the Danish army was damaged by the decision of the Minister of War, before the campaign of 1864, to divide up all the battalions in order to gain a double number of battalions for the war.

each captain upon his *own* company or squadron, than upon strange troops that have only been assigned to him on the outbreak of the war. On the other hand, the private soldier obeys his well-known superiors more willingly than those who are strange to him. Due consideration for the unions actually existing is a matter of such urgency that all subordinate considerations of how they shall be employed and used in battle may be disregarded. As a rule we may assume, that in war a regiment composed of three battalions will be able to perform considerably more than three battalions composed at random of different regiments, which were only assigned to one man *ad hoc*.

Should divisions be at random composed of different army corps, provincial diversities have also sometimes to be reckoned with. One race in the German army requires to be dealt with rigorously, and another with leniency; the one requires to be treated with rigour, and the other in a friendly manner. This one is spurred on by reproach administered at the right time, and another is fired most by generous praise. Between the Berliner, or Brandenburger, and the Westphalian, between the East Prussian and the Rhineländer, there is considerable difference of character. The commander of the troops in war must know them in their life of peace; he must know how he has "to take them."

Of great importance for the maintenance of discipline is that those soldiers, who after serving their time with the colours return to their civil life, are in case of war summoned to the same regiment in which they have received their military training. They find again here their old acquaintances, comrades, and superiors, with whom they can easily get on, and find conditions to which they were once on a time accustomed, and into which they again quickly enter. They find a pleasure in the reputation and the well-being of this their particular community, and feel a pride in belonging to it. *Esprit de corps* animates them, producing a noble rivalry with other regiments.

It cannot, of course, be possible, on account of the manifold considerations to which mobilisation gives rise, to arrange matters in every case so that each man summoned to the army shall be included in his old union, but it should always be done as far as is possible.

Tradition and *esprit de corps* can only develop when officers in one and the same regiment do not change too frequently; particularly this is the case with the "chefs" of companies, squadrons, and batteries, in whose hands the training of their men lies. Further, the several regiments and bodies of troops must not be weakened too much in their peace strength. The body must be considerably large if a definite tradition is to live in it.*

Then large numbers of troops are indispensable for various training-purposes. Too weak peace companies and battalions lose their independence. In their exercises they cannot represent and execute what companies and battalions in war have to perform. The dangerous expedient must therefore be resorted to of combining several and assigning them to one of the commanders in charge. We meet with a similar state of things in France; but hereby the fundamental principle of training, discipline, and order would, in our case, be broken through; the principle that consists in every superior being personally responsible for the condition of his regiment. Personal interest, personal influence, and, as a natural consequence, discipline too, would be diminished.

Another kind of discipline is also requisite; this, in contrast to the moral, might be called the intellectual. If intelligence is allowed to work in an army without rule, it renders command uncommonly difficult; this has often been the misfortune of improvised armies.

In militia and volunteers who are called out in the hour of danger there is, generally speaking, no lack of talented and educated men among their commanders. The best men in the nation, who would otherwise not have devoted their energies to military service, must, under such circumstances, obey the summons. The armies of the French September Republic numbered many members of the highest aristocracy in their lower ranks, and here there was certainly no lack of intelligence; but it was an undisciplined intelligence, which lacked uniform training, and thus action lacked unity.

This latter is guaranteed by a uniform training. By this we do not mean that the sphere of a commander's activity must be

* See Blume's *Strategy, on Training Troops*, p. 67.

systematised according to definite rules. War is impatient of schedules. Yet there must be a certain harmony in the manner of performing these tasks. And this is obtained by individual and general principles being engrafted into the flesh and blood of the commanders of the troops by teaching and training. They must be adduced in the rules as being leading principles for action; as is the case in the *Directiven* for special war emergencies. Leadership must not be without a strict schooling; only thus is it possible that a certain task shall be performed by all officers upon whom it may be imposed, and that not after one single fashion, but on similar principles. In the case of the theoretical problems that are propounded in peace time, solutions are wont to show great diversities; but they have been purposely so devised as tests, with a view to their producing doubts in the minds of those upon whom they are imposed. In war everything proceeds much more simply. When, in the year 1870, the German armies massed on the Rhine, it would have been difficult to have found a single general who would not have decided to take the offensive at once against France. To employ our superiority in numbers, and the efficiency of our troops in a vigorous and rapid offensive, was the feeling of each one of us. We had imbibed this principle with the air of our military school.

If such discipline of the intelligence exists, the commander may, with composure, leave much to the independence of the individual. He will be certain that, where he cannot personally control matters, perhaps just that what he would have done will not take place, but that something practical will be done, and in harmony with his intention.

Uniformity in mental training will, moreover, only be possible where the whole staff of officers is socially upon the same footing. It is, of course, wanting in armies whose corps of officers have partly risen from the ranks and partly from military schools and academies; among such a perfect unity of action will never be assured.

3.—*The Concentration of the Armies.*

The opening of the campaign is preceded by the *auf-marsch*; that is, the massing of forces on the frontier of the state to be

attacked. The importance of correctly massing the troops increases in proportion to the numbers of the combatants.

The work of the great General Staff upon the Franco-German War expresses itself on the point as follows: "Mistakes in the original massing of the armies can hardly be retrieved in the whole course of a campaign." Now at the first glance the correctness of this saying may appear doubtful. One would think that much more is dependent upon the issue of the first battles and engagements, which also, in case of necessity, afford the chance of quickly rectifying mistakes committed in the massing of the troops. The history of war does not lack instances of campaigns, begun with the most unfavourable evolutions, taking a complete turn for the better after a single successful battle. Let us only reflect on the fortune of Frederick the Great, in the first campaign of 1741. Field-Marshal Neipperg completely surprised the young King when entering Upper Silesia; by his advance upon Neisse, he cut him off from all his communications, threatened his magazines and his reserve artillery, and compelled him to fight a battle with his face turned towards the enemy's country, so that he would have been irretrievably lost had he not been victorious. A more brilliant opening of the campaign for Austria, and a worse look-out for Prussia, is scarcely possible to conceive. But at Mollwitz the better training of the Prussian infantry was victorious, and the most abrupt change took place. At one stroke Frederick was master of the situation. It appears as if all strategical conditions had been completely without any influence whatever. We receive similar impressions, if we contemplate Czaslau and Hohenfriedberg, Leuthen, and their connection with the events preceding them.

Yet all these instances belong, without exception, to olden times. To the peculiarities of modern warfare belongs the intimate connection between movement and battle. That even to-day a campaign unfortunately begun may suddenly, by a single victory, take a favourable course, is certainly not impossible, but it is in the highest degree improbable. Considering the construction of the armies, and the very great extent over which they spread, as well as the independence of the individual parts, preliminary movements will always lead to collisions. These movements can only take a

favourable course if successful engagements be fought; as the march of the Germans into France was attended by the victories of Weissembourg, Wörth, and Spicheren. The better strategical position of one side proclaims at once definitely its tactical superiority. A faulty concentration entails that the forces are not at the spot where they are subsequently most required; and it will not, accordingly, be possible to bring to a successful issue those battles which will be first of all requisite for improving the general situation. Therein lies the disastrous effect of errors committed in concentration. Where the opposing forces are equal, such errors will in most cases effect the retreat of the one and the advance of the other. The best instance is shown by the Austrian campaign in the year 1805. A strong army of 100,000 men composed of the best regiments, and under a most experienced commander, the Archduke Charles, was sent to Italy, where, to judge by appearances, as in 1796, 1797, 1799 and 1800, the most important decisions were anticipated. Only 70,000 men under Archduke Ferdinand and Mack were upon the theatre of war in Germany, when Napoleon arrived with superior numbers from Boulogne by forced marches. The great catastrophe of Ulm was the immediate consequence. It could not be counterbalanced by the victory gained by the Austrians at Caldiero in Italy. Though the mistake was soon perceived, and Archduke Charles recalled to Germany, yet this could not alter the issue of the war one tittle. The battle of Austerlitz ended it before the Archduke could strike a blow for Austria.

The first massing of the French armies in 1870, in two distinct groups before Metz and in Alsace, was done with a view to taking a rapid offensive into Germany, which they neither possessed the means for accomplishing nor even seriously entertained. The wide separation of the two armies, after the first disasters had rendered it impossible for them to unite, compelled a long retreat. MacMahon's retreat to Chalons, and Bazaine's isolation at Metz, which soon followed, were the result. The last led to the march upon Sedan and the catastrophe of the 1st of September. It is easy to perceive the connection of the seven defeats, which were inflicted upon France in the first period of the great war, with the original dispositions affecting the massing of the troops.

The concentration of the armies falls in a time when politics have just decided to have recourse to the sword; hence not only military but also political considerations must be thought of. Then come considerations of commissariat, housing, geographical conditions, lines of communication and network of roads demand attention.

No state will immediately at the outset of the war be willing to give up and surrender a province that is threatened, even when military reasons would make this appear to be desirable. The doctrine of war has certainly laid it down that such sacrifices must be made without hesitation when higher interests require it. When the conduct of war was exclusively dependent upon the sovereign will of an absolute monarch, this may have been correct. In our days the courage, strength, and confidence of the whole nation, as well as its national credit, play too great a part to allow of this being adhered to. Let us only present to our minds the impression it would make, if the war of Germany against France began with the surrender of the left bank of the Rhine, or a campaign against Russia were to begin with the abandonment of Prussia, as far as the Vistula.

The motives which would perhaps justify these measures in the eyes of soldiers would be concealed from the view of the masses. They would always come into the most lively state of uneasiness if considerable tracts of the country were abandoned by their own troops, and surrendered to the foe, without apparent necessity. In the voluntary abandonment of a province is also abandoned the use of its resources and energies. If the enemy can occupy it, we must even, if the war has run favourably for us, recover it again before the conclusion of peace.

After the ill-starred campaign of 1806, learned critics asserted that the Prussian army ought to have retired upon the Oder and united with the Russians. Even if Saxony had defected and many troops had deserted throughout the long march of retreat, yet, all the same, numbers would have told in its favour. That is quite correct. But even if Napoleon's attack upon the line of the Oder had not succeeded, yet, all the same, the Emperor was meanwhile master of the best Prussian provinces, and the Prussian army would have been obliged to win back its own land by victories before

arriving at the point where it was before the outbreak of war. The attempt to maintain it from the first deserves, accordingly, no blame at all. To war the Latin proverb, "*Beati possidentes*," is, also, applicable.

Accordingly, Frederick the Great, in the invasion of 1757, occupied East Prussia as long as he possibly could. During his various campaigns in Lusatia and in Bohemia, he was always bent upon securing upper Silesia. Similar was the case in 1801, when the Prussian army concentrated in Thuringia and Franconia, but an army corps was left at Glatz and Neisse. In 1866 the Prussian army concentrated there, in spite of the fact that the march into Bohemia in the direction of Gitschin had already been decided upon.

Protection for the threatened provinces is one of the demands which must be fulfilled at the first concentration of the armies.

It must, however, not be conceived of as being an absolute occupation of the frontier. Very frequently it will indirectly result from the proximity of a great army, which makes the advance into the denuded tracts of country so dangerous to the enemy that he abandons the idea. If it has been determined to advance to the attack, the effect of this movement will very soon be to secure one's own territory. The enemy can also, as a rule, only despatch inconsiderable forces to distant provinces. Therefore, reserve and garrison troops, or even general levies of citizens, may be entrusted with the duty of guarding them. For instance, in the year 1795, when war with Russia threatened to break out, the minister Von Schroetter was prepared to defend watery, hilly, and woody East Prussia with a "Landsturm" of fifty to sixty thousand men, supported by a few strongholds.

Those portions of the active army, whose first mission it is, whilst the troops are concentrating, to protect the frontier, may only in quite exceptional cases be withdrawn from co-operation in the great operations. If they at the same time arrest the progress of the enemy's army, as the corps of the Field Marshal Lehwald did the Russians, or avert great masses of the enemy's troops from the critical spot, as Massena did in Italy in 1805, they may be left detached from their main force. In such a case they pay; but in other cases, they must always be so arranged as for it to be possible to bring them up to the decisive point in

time. This was the case with Schwerin's division in 1757, when King Frederick invaded Bohemia. It was repeated in 1866, with the army of our Crown Prince, when the Prussian attack began.

It is also essential to secure the integrity of one's own territory, but it must be adroitly brought to harmonise with the co-operation of all forces for the dealing of the great blows.

But the transition from a state of peace to one of war will not always be as sudden as it was in 1870. In spite of all possible haste, the concentration takes a considerable number of days. The massing of great bodies of men and horses always entails manifold difficulties. Not only good quarters must be provided, but the question of commissariat demands even still more attention. Even though the troops do bring some provisions from their home with them, yet it will not be possible quite to dispense with the resources of the district wherein the troops are being concentrated. It is in any case an invaluable advantage, if they can for some time find good quarters. Besides, steps are immediately taken to form magazines. Purchases of supplies on a great scale must be possible either on the spot or in the neighbourhood. The railways principally serve for the transport of troops. Rivers which lead from important centres into the district where the army assembles bring the greatest relief. That the massing of troops can be more easily effected in a rich country, covered with a network of railways and roads and rivers, than in a poor and barren district, where quite special arrangements have occasionally to be made, is quite evident. *The natural and civilised conditions of the territory, where the massing of the troops takes place, must likewise be carefully considered.* Moreover, as a matter of course, a great number of combatants cannot be concentrated where fordless rivers, or hills, or trackless mountains, delay their later movements; but this consideration is for the most part met by the fact that no great lines of traffic lead into such districts, and thus they are not taken into account in dealing with the massing of considerable bodies of troops.

What effect politics exercise upon war, was seen in the year 1877. Had Russia been able to reckon upon Austria, as upon Roumania, it would have been in a position to have massed its army of the south on the Danube, instead of on the Pruth.

No great fears were entertained of an offensive on the part of the Turks across the river, to disturb that concentration. The consideration to be paid to unreliable neighbours, to faithful allies whom danger threatens, to wavering Powers whom we wish to carry away by the prompt offer of a powerful protection, and considerations to be paid to neutral territory, respect for which is at the same time enjoined by cleverness, will make themselves felt in all concentrations.

But, before all things, the position of the great lines of communication leading to the district chosen for the massing of the troops, especially that of the railways, is of vital importance.

It is easy to conceive that that belligerent which is first ready with his concentration is much in advance of the other; he can begin with evolutions, and force his will upon his opponent. Where the forces are to a certain extent equal, he will also have the first successful battles on his side, gain in moral value, arouse confidence, and gain it from others. He will, in a single word, lay down the law of action, instead of obeying it. He has in the preliminary operations the ascendancy on his side; and it is, as a rule, only imperative that he understands how to use it with energy in order to assert it permanently. The rivalry of great armies of these modern days in mobilising their forces on the frontier is thus explained. This rivalry now reckons by hours, and no longer by days. It is, therefore, of the highest importance for strategical concentration, to use as many railways as possible; nay, if possible, all that lead in the direction in which the war is to be undertaken. The plan for the concentration will begin with the consideration of this condition. The question how the troops are to be brought up to the frontier on which they are wanted, is naturally the first.

If the extraordinary importance of the rapid completion of the *Auf-marsch* is recognised, its connection with the *mobilisation* of the army is at the same time at once apparent. No regiment is capable of marching immediately upon the enemy from its head-quarters. First of all, the soldiers that have been dismissed must be summoned to the colours, each one to his own particular sphere of action. Hundreds, thousands—perhaps, millions—of men will be suddenly torn from their firesides and set hastily in movement; and

this latter must be most precisely determined beforehand if a serious confusion is not to arise. The most difficult is not the mobilisation of the line regiments; here, on the contrary, everything works easily in comparison. But numerous and special departments must be newly formed. The first reserve, the garrison and the reinforcements, *ober-kommandos*, general-gouvernements and gouvernements, the inspections of the lines of communication, and the *kommandanturen*, most of them with special staffs, composed of various branches, are only formed on the day of mobilisation. All the columns and trains must be filled and equipped with horses; and the parks of transport newly organised. *Intendanturen*; the commissariat, field-bakeries, and post-offices, the telegraph staff; the paymaster's, the legal and sanitary, and the chaplain's departments, must also be formed.

Commissions of all kinds are formed. Men have to be clothed and armed, officers and officials furnished with horses, depôts formed, supplies collected and brought together. Fortresses threatened by the enemy must be put into a state of defence, and equipped with military garrisons, officials, and organisations of all kinds. The business of peace requires to be brought to a conclusion, or to be assigned to representative officers; the archives and registration departments must be made secure for the period the war shall last, The bureaux for the active army must be arranged and properly fitted out. Men, horses, and *matériel* of war must be forwarded upon the railway to the place where they are required. The transports to the frontier soon afterwards begin. All this must take place in the course of a few days. In the year 1870 mobilisation was ordered on the night of the 16th of July; and on the 4th August the frontier had been passed and the first victory won. Now-a-days we wish to be quicker still. A work must be accomplished that not only requires long and careful preparation in time of peace, but which also in the moment of execution, sets the governmental administrative machine in feverish activity and makes it put forth all its strength. Yes, this feverish energy seizes upon the whole of the nation. All private matters are affected to the greatest extent. The days of mobilisation are days of great excitement and exertion for everyone. "The mobilisation of an army is, under our modern conditions,

a safe index for testing the value of the whole political organisation and the spirit of the people," as Colonel Blume rightly says in his book upon *Strategy* (p. 66; Berlin, 1866).

The plans of the field-marshal are mere castles in the air, without good preparation for the rapid placing of armies upon a war-footing. The enthusiasm of a whole nation cannot replace a deficiency in this respect. France in 1870 comes warningly before us. At that time the superiority of Germany, in point of numbers, was known in Paris; and this superiority our enemies intended to neutralise by boldness and rapidity. The idea was a good one. The whole people, carried away by wild, martial ardour, demanded energetic measures—a material aid to an energetic *régime*. But for the purposes of putting them into execution it was needful, before all else, that the Germans should be outdone in the rapidity with which the armies were massed; instead of which, however, confusion and stagnation made themselves felt from the first. The boldest plans would have been impotent. The machine refused to work.

Some of the telegraphic cries of anguish which flowed into the French Ministry of War, upon all the wires, from helpless subordinates, are well known: "900 reserve troops here, I do not know what to do with them. In order to make elbow room I shall send them all to Algiers, upon the transport ships here in the harbour"; the territorial commandant at Marseilles reported.

"How far have you got on with the formation of your divisions? The Emperor orders you to hasten this formation in order to join Marshal Macmahon as quickly as possible." With these words the major-général of the army, who had been for some time Minister of War, addressed himself to one of the commanders of an army corps. "Send me money that I may provision my troops; there is nothing in the public treasury, and in those of the corps nothing either," a general was heard to say.

"In Metz there is neither coffee nor sugar, no rice, no salt, only a little bacon and biscuit; send me at least a million rations to Thionville," telegraphed the quartermaster-general to Paris. The quartermaster-general of the third army corps reported at the very moment his troops should start, "I have neither nurses

nor ambulance waggons, nor officers, nor field bakeries, nor train."

And so it went on. Haste, mistakes, deficiency, disorder reigned supreme; whilst the mobilisation of the German armies was accomplished with an almost noiseless calmness. These latter broke into the country over the frontier before, on the French side, the first step had been taken towards meeting the demand for an *offensive* which should put everything right. The idea of crossing the Rhine and separating north and south Germany from each other belonged to the past.

That will always be the fate of projects of war when preparations have not been made in time of peace to harmonise with them, and when the *wishing* and the *being able* are not in concert with each other.

Yet danger does not *alone* lie in neglect. Over-great demands, such as the rivalry of the different great states in hastening their mobilisation and massing their forces easily entails, are quite as dangerous. The best of forces fail to do their duty when confronted with impossible tasks. The feeling that one is opposed to such, deprives men of clearness and composure. He who at the time of mobilisation has not great vigour, both of mind and body, will not be capable of responding to those demands. A leading man must, therefore, avoid all over-exertion quite as much as inactivity. Nothing, in critical moments, has a worse effect than nervous irritation. Our simple forefathers knew nothing of this. The disquietude of our modern life has made it a fashionable disease. Valuable as all time gained in mobilisation is, it must yet not be bought at the expense of order.

As the massing of the troops is intimately connected in one direction with mobilisation, so it is also connected in the other with the intentions which are entertained with respect to the *opening operations*. A concentrating of armies, which is a practical measure for an attack about to be made, may be very unfavourable for the defence; as was experienced by France in August 1870. All considerations are seldom united at the first outset. Here, too, the attitude we pre-suppose the enemy to adopt is also naturally of influence. To calculate it aright is the duty of the scheme of operations.

The concentration of the armies of two Powers of the first order presents us to-day with the picture of the most stupendous emigration of peoples. Each brings with it a million of men, and 300,000 horses, as though it were a small realm that had become set in motion, and was wandering to the frontier in order to pour its whole population over a confined district. Were it not for our modern means of intercourse, it were impossible to move and provide for such masses. It is only possible because States like France and Germany have so much railway material at their disposal that they can entrain their whole active army *simultaneously*.

The trouble and care necessary in order to arrange this martial migration of peoples, and the moving forwards and backwards of numerous railway trains, needs no especial notice. The preliminary labours for this special branch employ no insignificant number of officers, officials and engineers in time of peace.

Where numerous considerations prevail, it is difficult to find the correct solution. But on that account a strategical concentration is also the sole military operation which the supreme commander of the armies still has completely under his own control. The conditions and the difficulties are manifold and difficult, but yet they can be previously calculated, as can most events in war. For the success of this first act, in which uncertainty, that controls everything else, plays the smallest part, the general staff to which is entrusted the duty of working it out must be made especially responsible. Only afterwards do the sovereign powers of fate begin their play, and withdraw the course of events sometimes, also, from the keenest human calculation and foresight.

Twice lately this problem has been successfully solved. The massing of the Prussian army in the year 1866 belongs to the best of its kind. After it was accomplished, and had succeeded, it appeared perfectly natural, just as if it could not have been possible for it to have gone otherwise; but let us present to our minds the original state of things, and we shall be forced to recognise that it was an extraordinary feat. Three inimical groups of states threatened Prussia on the west, south-west, and south respectively—between them its own territory split up and divided by the most unfavourable frontiers possible; a portion of its forces in Schleswig.

Austria was five weeks beforehand in its preparations for war, when Prussia mobilised its army, between the 5th and 12th of May. Yet the latter was ready with its armies on the Silesian and Bohemian frontier, and gained fourteen days start of Austria. That could only have been attained by the bold resolve to direct the whole of the available forces immediately against the most important enemy, viz. Austria, further, by adroitly employing all five railway lines which converged upon the theatre of war; and, last of all, by massing in three independent groups. But it was this very last measure that was at this time particularly found fault with; and yet it was the most important of all. It was that which rendered it possible to make up the lost time; for, to three points of concentration more communications run than to one only. It brought it to pass that the provinces most directly threatened, the Mark and Silesia, were simultaneously protected, that the army could be provisioned without difficulty, and that it had at its disposal for its advance at once a large number of convenient roads. But, certainly, this advance was bound to ensue. To stand still with divided armies upon a line sixty miles in length, lying between the Saale and the Neisse, divided by the Elbe and the numerous tributaries of the Oder, in order, in this position, to await the attack of the enemy, would have been ruination. Only the union of these armies after advancing into the enemy's country could neutralise the dangers of the position. But this also had from the first been calculated out. The bold step was at once enjoined by cleverness and prudence. The good result that was obtained does not appear mere accidental success, but the result of a practical plan.

The short-sighted reproach that was launched by a critical voice against that concentration and the first operations with these words,* "The Prussian military operations did not in respect of strategical combinations pass beyond mediocrity," has been replied to aptly by a pen that is most of all qualified to write it: "Amid the perplexing elements of war, it will be very seldom that one will be able to attain the ideal, but even what is mediocre may, as the result has shown, attain its object. The union of the Prussian armies at the right moment has, at all events, never been claimed

* In the February number of the year 1866 of the Austrian military periodical (*Streffleur*).

by the Prussian General Staff as an especially intellectual idea or a very abstruse combination. It was a remedy for an unfavourable yet original situation, enjoined by necessity, planned with understanding, and carried into execution with energy." *

In the year 1870, what was most instructive in the massing of the German army was, on the one hand, the justifiable boldness with which, in spite of the sudden burst on the part of France, it was thrown across the Rhine, and, on the other hand, the confidence with which the direct protection of South Germany on the Upper Rhine was abandoned, in order to permit of all forces being united together in the Palatinate. Nothing was more correct than this; for the great German armies, which appeared on the Saar, threatened France and Paris so immediately, that the enemy could no longer think of any far-reaching operations.

Definite rules cannot be laid down for the concentration of troops any more than for any other matters of war. Only the conditions upon which the original massing of the armies is dependent must be explained in general terms. In every instance they will work partially or collectively, but yet be always different in their effects. To conceive of them aright, under the circumstances given in the concrete case, is a matter for military shrewdness. But a good school is productive of good results in this task. If it be only in order to be assured of correct measures being adopted at the commencement of a campaign, that the theory of a great war is studied, yet in this one single respect it is of sufficient value for us.

4.—*The Plan of Operations.*

"*Je n'ai jamais eu un plan d'opération,*" is a saying of Napoleon. But, in spite of this, belief in a system of war has been preserved down to our days. Great soldiers, who are honoured by a grateful country with statues, have a drawn sword placed in their hands when they have gained glory as leaders of troops. Those who have been pre-eminently regarded as "thinkers," hold a scroll in theirs. This scroll signifies their plan of operations, the symbol of their merits. It is said of them that they calculated beforehand

* No 18 of the *Militär Wochenblat* of 1867. Field Marshal Moltke is said to be the author of the essay in question.

and foretold exactly, the course events would take, and when and how they would defeat the enemy. Of Frederick the Great, history narrated erroneously, for a whole century, that on the 4th of May exactly he intended to be before Prague, and to defeat the Austrians on the 6th. How widely spread was not the assumption that the battles of Könnigrätz, Thionville, Metz, and Sedan were all enumerated in the plans of the German generals.

But now we are told by the work of the General Staff of 1870: "Only an unprofessional man thinks that he can, in the course of a campaign, perceive a previously determined execution of a plan, laid down with all its details and adhered to until the last. True it is that the general commanding will ever keep great ends before his eyes, unperplexed by the vicissitudes of events; but the ways upon which he hopes to attain these ends *can never be with certainty laid down long beforehand.*"

That approaches Napoleon's saying. Yes, we may assume that, strictly speaking, he meant just what has been here said. So far as the first steps may with any degree of clearness be perceived, he here also definitely fixed his eye upon them and thoroughly prepared the way for their succeeding. He was, in spite of all his boldness, a very cautious general, and his adverse judgment was only based upon the military war-plans of the old military scientists, who, in spite of their specious acuteness, were nothing but incapable *dilettantes*.

A test of this is the plan which Charles William Ferdinand of Brunswick, on the 3rd of November 1805, laid before the Council of Monarchs at Potsdam. Napoleon had taken Mack prisoner at Ulm, and was about to advance into the heart of defenceless Austria, yet the Duke proved that the Emperor could not march by the Tyrol so long as the Austrians were there, and that he would be soon checked. Then the Prussians from the north and the Austrians from the south would fall upon his rear, and the Russians take him by the throat, as soon as he faced quickly round; thus much was assumed to be certain. On the Neckar, the Duke would cut off all his communications with his country, so that he would be only able to save himself by crossing the Rhine, or would be obliged to take refuge in Switerland. In the winter, the Allies, after all these suc-

cessful events, would encamp victoriously on the right bank of the Rhine from the Wesel to the Lake of Constance, in order to keep Napoleon secure on the other side. But, more than this, right through Holland, and across Italy, this Prussian *generalissimo* intended to have Napoleon attacked by the Allies, so that from the north down to the Mediterranean, a great net was to be drawn round the lion and he taken prisoner in it. But how, supposing he freed himself by a battle?

The Duke easily helped himself over this objection. Napoleon was bound to lose the battle.

Of course, if we may calculate in this way, plans of a campaign can be drawn from the beginning to the end. Instead of the retreat of the French, however, the march on Vienna took place; instead of their defeat, the victory of Austerlitz; and the whole plan showed itself to be what it really was, a mere impotent cobweb of the brain.

With the commencement of the operations after the massing of the troops, that prevailing element in war, uncertainty, begins to show itself. In the reality of war, things always turn out differently to what was originally expected. Nothing is more natural than this. "The independent will of the enemy now opposes one's own will." Whoever would calculate the course of events beforehand, must draw results from given and ungiven quantities. The result must be uncertain. A little certainty is inspired into the calculation as soon as it has been decided which of the two parties is the stronger, and the stronger knows that he is able to carry out his own intentions wherever the enemy crosses them. He has then firmer ground for his combinations than his opponent.

Each of the belligerents will endeavour to create such a situation for himself, and so it comes to pass that in a simple conception of war a great decisive battle must be sought by both parties. At all events, that party aims at it that feels in himself definite resolve and great confidence. *The first object upon which the movements of the armies are to be directed is, accordingly, the enemy's main army.*

Wherever this rule is deviated from, reaction is the almost invariable result. The last instance of this is afforded by the summer campaign of 1877. With great agility the Russians, after crossing

the Danube, reached the passes of the Balkans, and pressed forward through this protecting range of hills. It appeared to them that the road to Constantinople was open, and in two weeks all would be over that had been expected to take months. But the confirmation of this success was confronted by a very great difficulty. The Turkish armies on the north side of the Balkans were as yet undefeated, and the fate of the campaign was dependent upon the work that had to be accomplished there, and not upon the mere gaining of a few passes. Scarcely did the armies of the Osmanlis give the first signs of life and appear on the Lom and at Plevna, in the flank of the Russian advance, when all that had been gained was obliged to be given up, and the issue of a battle, which had been hitherto avoided, was obliged to be staked. Until this decision took place, the whole operations stood still.

In the battle, the victor subordinates the will of the enemy to his own, but he does not entirely suppress it. Decisions like that of Sedan, in which whole armies disappear from the theatre of war at a single blow, are very rare. The will of the defeated still retains a certain influence. MacMahon's influence, in spite of his defeat at Wörth and the deficient character of his army that had been reinforced at Châlons, was yet sufficient to divert the German main army from its march upon Paris to the northern frontier.

Even the battle's successful issue does not fully secure the execution of plans. Even after this, it is dependent upon the combinations of the moment, and upon the complications which result from effect and counter effect. These lead to fresh actions, and each battle changes the situation as completely as a twist does the coloured glass of a kaleidoscope. The general is thus compelled every day, and often within a period of a few hours, to attach his combinations to new situations. The history of war but seldom gives a complete picture of it. Considering the multitude of events it deals with, it, as a rule, only brings into prominence what in later times commands general interest, and skips what is only of momentary importance, only then to disappear as illusion. After a war one ought not only to write the history of what has taken place, but also the history of what was intended; then would the narrative be interesting. The intricacy of influences is much greater than people imagine. A

day about which we only read a few lines in a book may, in reality, have been fraught with great historical interest.

Many things must be looked to. Here we must push, and there we must impede, in order that the course towards the object that is glimmering in the distance be not lost. New plans ever attach to fresh situations. It depends upon the perseverance and the acuteness of the general to what extent a great leading thought shall, like a red thread, go through all. Where shall we find this idea? It results from the general situation of war and politics. In considering it we shall, as a rule, have come to a definite conclusion as to what must be attained in order to deprive the opponent of the inclination for continuing the struggle.

A weak opponent will say to himself that he can tire out the stronger by continuing a resistance to a certain point, or by gaining allies. The stronger forms an idea as to how far he must advance after crushing the enemy's forces, whether he must occupy the enemy's capital, or its central provinces, in order to attain a successful conclusion of peace, which is the end and object of all war.

According to this, one can present to himself a picture in great outline of that course of events which should always be aimed at amid the eternally changing vicissitudes of events. It may, perhaps, be laid down as a principle, that resistance must be continued behind this and that entrenchment, until reinforcements arrive, or until the armies of a friendly power come up. If one has the strength, one will determine to push the enemy, as soon as ever one has succeeded in defeating him, into a direction disadvantageous to him, into portions of the country one has previously chosen for the purpose; but more than such general hints and points of view cannot be given even by the best strategist. Only the most immediate steps can be determined in detail. *No plan of operation can, with any degree of safety, extend beyond the first collision with the enemy's main army.*

Unfortunately the strategic plans of the general only seldom transpire in their entirety. As a rule, the admixture of political considerations makes them ill-suited for publication. Of all the more value are the individual instances, where they have been printed, such as the Memoir of the Prussian General Staff, which afterwards formed the basis for the first movements of the German armies in the

great war. We find therein, after a general survey of the position of Germany and France, and a comparison of the forces, the advance of the three armies described almost exactly as it took place. There are even therein contained all the details that are regulated and determined by the authority of the commander-in-chief. Further, the immediate object was declared to be to find and attack the French main army. Under all circumstances it might be presumed to be close to the front. The directions the advance should take, as they were as a fact taken in the memorable days of August, were accordingly easy to arrange. Furthermore, as is told us, the sole leading idea was to drive the enemy's armies from their connection with Paris towards the North. But more than that this was desirable could not with any certainty be determined beforehand.

This idea that was only signified in general terms was to a certain extent sure of realisation. It could never have been a prophetic calculation of separate and individual movements. In the advance of two German army corps upon the Moselle, southwards from Metz, towards which latter place Bazaine had withdrawn, in the movement of the third army upon Châlons, in the march upon Sedan—everywhere the endeavour can be perceived to drive back the enemy into the smaller northern part of France, and to cut him off at once from his metropolis and the resources of the south. But vaticination would never have dared prophecy beforehand that Bazaine would decide to remain about Metz, and that MacMahon would then be forced to undertake the disastrous march in order to save him. Such decisions are dependent upon how the doubts in the mind of the general turn out at the critical moment. A mere accident, information not important in itself, an encouraging or discouraging word, may give calculations and decisions a different direction.

Only strategic plans of such wise limitation as those referred to have prospects of realisation. The term "design of operation" is more in harmony with the nature of the case than "plan of operation" or "war plan."

The whole province which the "design of operation" covers is a narrow one. It embraces in these days not more than the first collection of the forces for the advance against the enemy's

main force, or for repelling its attack. In the future it will be still further restricted, when armies become more numerous, and the systematic frontier defences more frequent. From the first moment the armies confront each other closely, and the scope for movements is very small. A preliminary operation, formerly unknown, will in the future, under similar circumstances, be to push through—that is, break through—the frontier line. This must be attempted by the assailant in the place where he knows that the enemy's main force is not in immediate proximity; for its presence on the spot would materially impede the clearing away of the defences. In this case, accordingly, the enemy's main body will be sought for by a roundabout way. Flank movements on both sides of the original line of advance, and the rapid massing of troops on the point where on the one side a breaking through is expected, or on the other feared, will be the prelude to the ensuing bloody battles. Upon these, according as the issue of them is, further steps will follow.

More detailed statements as to the contents of a design of operation it is hard to make. The operations will vary according to the situation of either belligerent at the time hostilities commence. Only the history of its origin can be sketched, and it will as a rule be fairly uniform.

Designs of operations and advance must be worked out together. First of all, the general political situation must be sketched in its main features. Therewith is, as a rule, combined an estimate of the forces at the disposal of the parties. The result of these introductory considerations will be the determination against which power the main forces shall operate, so as to bring about a decision, which is also of political effect, and which must be arrested or only observed. The simple case, that there is only one power to consider, is rare. For the most part allies, uncertain neighbours, or secret enemies demand attention besides the open ones. Germany, especially, owing to the fact that it is surrounded by great Powers, must ever look on all sides. For instance, we can complete the actual design of operation of 1868 by the supposition that Austria had demanded attention as being the ally of France. At that time two years had only elapsed since the Austro-Prussian War. Such a supposition, accordingly, does

not lack the necessary possibility, and it makes the instance more instructive. At that time there would have to be taken into consideration whether the main army of the North German League should be employed against France or against Austria.

On the French frontier, the Rhine, with its fortifications, formed a very strong line of defence, which might have been held for a long time even against superior numbers. On the Austrian frontier such a line of defence was wanting. But, in defending itself with weak forces against France, South Germany would have remained without protection. The French could have evaded the North-German Rhine front by marching *viâ* Worms, Mannheim, or Speyer, and have advanced on Berlin upon the great road through Franconia, which Napoleon used in 1806. In the meanwhile, the offensive of our main forces against Austria would have come to a standstill, perhaps before Olmütz, or on the Danube. It would, also, have been possible that the Austrian armies would have immediately retired thither, in order to give the French time for successes. Besides, at that time, a number of weeks were required to be ready for war. On the other side, it would have been said that the French, if the German troops were once on their soil, would not have waited for Austria. Their national pride would not have suffered that. Here, accordingly, in any case, a great decision could have been rapidly effected, the effect of which could alter the whole situation, and possibly force Austria to sheath the sword she had only half drawn. Moreover, it was possible that she would have been stopped by considerations of Russia. And, therefore, in such a case, it would have been determined, in the first instance, to put only a weak army in the field against Austria, and to throw the main force upon France, in order to seek here as quickly as possible a great battle with superior numbers.

In like manner, we shall have to discern, in the case of other political groups, whither the main forces and whither the subordinate ones must be sent, or whether, as in 1870, it is advisable to operate with the whole force against a single enemy.

After the design has arrived at this point, the determination of the advance is next fixed upon. As this must, if possible, be completed earlier, but, at any rate, simultaneously with the enemy, it

will be absolutely necessary to distribute the troops among all the railroads leading to the frontier, in such a manner that every indirect course and all loss of time shall be avoided. The terminus stations of these lines show, as nearly as possible, the line of advance. Next come the numerous considerations of a political and geographical nature, already explained, and all the conditions of civilisation must also be regarded in their total effect. We must take into consideration whether the general circumstances compel us to await the attack of the enemy, or whether, which is always desirable, we should take the initiative. As in the latter alternative the object in view is the enemy's main force, it follows that its probable advance will be of the utmost influence upon our own. Of course, it is not known. But if in spirit we transport ourselves to the enemy's side, and there enter into the same investigations as we have already made in our own case, if we weigh carefully the position of the railroads in the enemy's country, the necessity of protecting the threatened provinces, and, later, the metropolis and the frontier defences, if such exist, we shall be able to guess with tolerable certainty the advance which the enemy must take. At the worst, there is a very limited number of possibilities.

If we have made up our minds as to the enemy's advance, in the *design of operation* (supposing there be any scope for it at all) we shall be able to determine in what district of the frontier our own troops ought to be massed. Thither the railway transports or the last sections will next be directed, branch and side lines being made use of. Finally, the troops will be pushed into position by foot marches. In this, each division must be allowed room enough to find comfortable quarters. It must also be taken into consideration that, in case defence be thought of, a combination of troops for a battle must be possible; if an attack is to be made, that each army corps must have at least one good road in front, leading from its quarters straight to the enemy. Under all circumstances, the cavalry divisions must be placed in the van, else, in order to allow them to begin their reconnoitring activity, they would have to be brought up through the other troops. This would be productive of confusion, and deprive them, besides, so long as they are passing, of the means of finding quarters, all the villages and towns being already occupied. They will, as a rule, be sent ahead

upon the railroads, or, at all events, a part of them, by which arrangement they will arrive at the front.

The position of the railway termini, and the roads upon which the last short marches are made into the area of concentration, usually determine the natural grouping of the collective forces in armies. That was also the case in 1870. At all events, merely in order to make one army stronger and another weaker, and to add these corps to this and others to that, no unnecessary and dilatory movements will be undertaken.

The measures hitherto laid down form the bases for the thorough utilisation of the railroads for the purpose of concentrating the troops. But from them there will always result a number of alterations and corrections for the design of operations, which will be subsequently added.

In case the massing of the troops has been precisely laid down, the design may be continued further by exactly determining the steps to be taken after the concentration is complete. Then it will be possible to calculate how many troops will be available on the frontier each day. By computation, the same can be calculated in the case of the enemy, and conclusions can be drawn as to what he is able to do and what measures must be adopted to meet him. Again, it will be seen at what moment we have become sufficiently strong to consider ourselves secure against surprise, and when we are in possession of numbers sufficient to enable us to advance and to open our operations. Finally, there may be added the direction in which we think of opening them.

Special considerations are requisite if naval and coast matters are likely to be of moment; that is, if we have to reckon with maritime operations, or with the possibility of the enemy landing. In like manner, in drawing up the plans of operation, it is necessary to decide where—according to general ideas—the enemy's frontier-line must be broken through. Heavy artillery will be required for this purpose, and bringing it up requires special preparations. If by a mistake it be sent to one wing whilst the advance is to be made with the other, it will not be possible to transport it in time.*

* Colonel Blume is of opinion that even where the surrender by bombardment of a town encompassed by fortifications may be expected, success may only very rarely be expected from the field-artillery alone.

Here, accordingly, precautions are necessary. For the same reasons it must be previously determined whether a great fortress of the enemy shall be besieged, and, if so, which.

No State can simultaneously attack several modern fortresses of the first order, so great an apparatus is necessary for the purpose; and if this be once brought up to any one place in the theatre of war, it can only with the greatest difficulty be transported to another.*

The design of operation in its full extent will not, usually, be submitted in writing to the *ober-kommandos* of the different armies: it is, however, of importance that the commander-in-chief of an army, or the chief of its general staff, should be informed in general terms of its contents, in order that they may not grope about in uncertainty as to preliminary steps, which are frequently of decisive influence upon the whole war. Even in 1870, we are told by the work of the General Staff that at the first advance on and across the Saar, there were no lack of misunderstandings.

Perhaps it would be as well if those who, in times of peace, have been chosen chiefs of the general staffs of the respective armies, were employed, if not in determining, yet in framing the design of operation.

Herefrom sprang the first *Direktiven* of the great head-quarters, and their comprehension will be materially facilitated by a knowledge of their basis.

It is not difficult to perceive that the design of operation cannot be the work of a day; that it arises by degrees, or, in case it has first been sketched from a single mould, that it must gradually be corrected and completed. Even if we proceed with greater certainty than in all the later decisions in war, yet even here we are very dependent. Mobilisation and the railway-transport are so intimately bound up with the strategic plan, that this latter cannot, as in olden times, freely decide as to the various directions the troops shall take. By this means on the one side the risk of falling into unsubstantial dreams of fancy is diminished; on the other, the work

* The design of operation must be supplemented by the addition of the railway dispositions, a sketch of the composition of the mobilised armies, a list of the officers in command, and information multiplied in a sufficient number of copies as to the enemy.

will be infinitely more difficult. Later designs of operation, such as arise in the course of the war, will only become freer when new phases are entered upon after decisive events. The advance has been effected, the armies are in motion, and only considerations of general validity must be observed, such as were also observed in former times.

One principle we must notice.

Even though the design of operation takes, as a rule, into consideration several possibilities, yet it must never look for measures which suit all cases; for these are for the most part of such a nature that they in no single case have especial weight.

On the 25th September 1806, the Prussian armies stood in three groups at Mühlhausen, Naumburg, and Freiberg in Saxony, whilst the French in South Germany were diffusely scattered. Now the Duke of Brunswick devised the plan of attacking the French army by surprise and defeating it before it had time to collect. But "the native hue of resolution was too soon sicklied o'er with the pale cast of thought." Diplomacy considered a peaceable compromise still possible; hostilities should accordingly not begin before a certain day. Meanwhile Napoleon had time to anticipate him, to encompass the advancing columns right or left, to throw them either towards Bohemia, or separate them from the Elbe. It was accordingly considered practical to place the army in such a position that it could, when needed, fall back upon the defensive. More than this, they wished, at the same time, to take care that they could turn in it as easily to the right as to the left, in case the enemy appeared on this side or that. And so it came to pass that it was resolved to first of all collect the forces on the north side of the Thuringian forest. By this means the wished-for delay in beginning hostilities was ensured. The troops would be able to stop before reaching the mountains, in case Napoleon played the "prevenire," and they could easily from Erfurt and Gotha march straight away by Eisenach and Fulda, in case the Emperor utilised the Hessian, or to Hof, in case he chose the Frankish-Saxon military road.

As a matter of fact the design suited all cases equally well, but herein lay its weakness; for in no particular case were the measures calculated exceptionally and energetically enough as to promise

a decisive success. The only favourable moment was allowed to pass.

After weighing all possibilities, the probable must at last be adhered to; our own mind must be definitely made up and all measures calculated upon being vigorously carried out. In the instance I have here quoted, the great leading idea was: a surprising offensive against South Germany. Loss of time weakened it, and this must accordingly be avoided under all circumstances. The design of operation could only extend to the rapid junction of forces forward in the direction of Bamberg, under utilisation of the nearest roads thither. Caution could only be expressed in rapidity, in proper vigilance and in the choice of the place of convergence, so that the several columns might come into collision with parts, yet not with the whole of the hostile forces.

Dangers, doubts, and subordinate matters must not be overlooked, yet they should only meet with consideration in so far as by so doing no weakening of the measures taken to carry through one's own intentions is entailed. Herein may be seen the sense of that so often quoted maxim, so seldom rightly understood: "Erst wägen, dann wagen."

As in all great decisions in war, so in the framing of the design of operation, is a limited view of things of paramount necessity. Whoever cannot descend to it will never, in the face of the goodly number of justifiable points of view which present themselves, come so far as to be able clearly to conceive of any great aim; he may perchance prove himself to be an acute critic, but never a great general.

5.—*Intelligence and Reconnoitring.*

Intelligence of the enemy is, as Clausewitz says, the basis of all ideas and actions in war. To it, accordingly, belongs a prominent place in these reflections. It is impossible to use any wiser judgment as to our own decision than to consider what will probably be the enemy's action. Therefore, it is by no means permissible to make oneself dependent upon the actions of the enemy. Only he who sets about his task with a faint heart confines himself to the defence. The more vigorous resolve makes it its aim

to force in spontaneous action the law upon the enemy, and to do it in the very place where the enemy feels it most acutely. In order to be able to do this, it is, before all else, necessary to ascertain his intentions. Good intelligence gives a great superiority. "If we at any time were to be aware beforehand of the intentions of the enemy, we should always, though with an inferior army, be superior to him."*

A good knowledge of the enemy is, in these modern times, brought into the war ready to hand, as his war organisation is carefully studied in times of peace. And this is a material part of the work of the general staff. A correct estimate of the enemy before the campaign, is the necessary basis of the whole Intelligence Department. As to the first gathering of the enemy's forces, one will not, as has been seen, be in complete uncertainty. Moreover, during the time that the first transports of troops take place, the enemy's land is not entirely closed; communications thence are possible. But after the commencement of operations, things assume a different shape, and they speedily transpose and shroud in darkness the original picture. From that time on it is necessary to find fresh light each day. Among the means which offer themselves to this end, those which the armies possess of their own energy are to be preferred to all others. The name that espionage has gotten is undeserved. Its advantage in modern warfare is confined to a few cases. When, in 1870, it was perceived in France that the German commanders acted upon apparently good information, there arose loud cries of indignation against the Prussian espionage which, as alleged, was everywhere apparent. This indignation only proved that the grande Nation of those days had no very clear conception of things appertaining to war.

As a matter of fact, the cavalry is the eye with which the army sees. The activity of this arm can best ascertain with clearness the measures and intentions of the enemy. Its celerity enables it, at the same time, to anticipate events. It discovers to-day what awaits the army to-morrow, or even later. Its functions are to find the enemy's columns on march, his camps and his vedettes, and, this done, to keep them constantly under its eye. It must

* Frederic the Great, *General-principia von Kriege*, 1753.

surround the enemy like an elastic material, avoid him when he advances in force, but cling to him and follow him whither he retires. The intelligence that it brings, has the advantage of being immediate, and of attaching to what is of importance at the moment. It has this great advantage over spies, that all the intelligence comes from professional persons. To these duties belongs much intelligence and appreciation of warfare; but the cavalry officer of the present day is trained for them.

This gives occasion for some reflections as to reconnoitre duties in general. Text-books speak much of well-mounted officers, accompanied by a handful of daring riders, breaking through the enemy's vedettes, surrounded by the enemy's bullets, making their observations right in the front or in the rear of the enemy's main army. Such performances are at all times most creditable, but they are difficult, as the enemy will use his cavalry in the same way. They require an extraordinary amount of courage, extraordinary circumspection, and extraordinarily good fortune. Therefore, we must not build our calculations entirely upon them,* much as all good cavalry will endeavour to distinguish itself therein. It is also of vital importance to have touch of the enemy at a considerable number of points. Scarcely ever will any one piece of intelligence give perfect information. The great dimensions, to which we must now call attention, prevent that. Yet reports from twenty or thirty different places give us the picture required.

It is quite as hard to frame reports well as it is to draw up orders. Perspicuity is the chief thing. It is impossible to lay down rules as to what must be reported and how. In a great war it is, with few exceptions, only reports from officers that have to be considered. All the more must one, then, rely upon the judgment of the reporters. Only certain incidents are of such an important character as to entail immediate intelligence on the part of the observer. When the enemy is for the first time seen, when infantry and artillery follow upon his cavalry which has been

* In the campaign of 1870–71 there were many very successful reconnaissances executed by certain cavalry officers to chronicle; but we must not forget that the enemy's cavalry impeded but little their operations. In the future that may be different.

hitherto alone perceived; when positions, which were believed to be occupied, are found to be unoccupied, important passages open, rivers of importance unguarded; when a noticeable change is observable in the enemy's line of march, and when, moreover, cannonade announces a collision, intelligence is always sent back in order to rapidly acquaint the commanders of the following columns. It is often quite as important for the commander-in-chief to know that his cavalry have nothing to report, that they cannot discover the enemy in any given direction, as it is that he has been met with in another. The security of the general is materially enhanced by the negative supplementing the position. From this fact may be seen of what importance energetic reporting is, even when there is no special news to give.

Of course hearing and hearsay will also, in the case of the cavalry, amplify to a great extent what has been seen.

Careful inquiries made of the inhabitants are also important. Means of communication have in these modern days increased to a very great degree the general interest and the public curiosity. Reports of great army movements always spread. Often it is quite enigmatical how quickly, in spite of interruptions to the ordinary means of communication in war, dark intelligence flies which is at the core correct. The country population in the neighbourhood of Metz had news of the march of MacMahon to Bazaine's relief, at a time when that movement was as yet in embryo, and none of the great battles had occurred that preceded Sedan. Of course there is here perceivable a great difference among nationalities. From the silent Russians and English it is certainly much harder to obtain anything than from the lively and talkative French and Italians. But something can always be learnt; and it is by no means necessary that the country-scouring vedettes should succeed in finding traitors to give important information. Each person, when asked, will, in order to put an end to the cross-questioning that is annoying to him, prefer to say only what appears to him to be unimportant. But from a hundred unimportant things one important piece of news can be composed.

And we are, moreover, entitled to draw the contrary conclusion that, in districts from which nothing is heard, no warlike movements as a matter of fact are being undertaken. This conclusion

must not be disregarded. It increases, also, the certainty to a considerable extent. It is not correct to imagine enemies everywhere. We may calculate that wherever they are, they will soon make themselves perceivable in one way or another.

All personal reflections of the reporter must be strictly banished from the intelligence. The only requisite is to announce all that has been seen, and exactly as it happened. It is the province of higher commanders, who are capable of understanding the connection of the single phenomena with the great whole, to perceive its importance.

Very frequently the proposal of a reporter has been the cause of operations which, though appearing advantageous from his point of view, yet ran counter to the interests of the army in general.

When, in 1806, the Duke of Brunswick wished to undertake the carefully-planned march through the Thuringian forest, he sent Captain Müffling ahead across the mountains to investigate. The captain found the French already in motion towards Saxony, and the country which lies on the Frankish Saale, where they were supposed to be in force, abandoned. That appeared to him to be void of all "sound sense," as Napoleon had left his rear communications towards the Rhine without protection. Müffling took this opportunity to advise the Duke to operate against these communications. He described beforehand the fine *coup* that could be made. He intended, of course, only to employ cavalry for this purpose. But the more cautious Duke, not wishing to allow the inviting opportunity to escape him, but yet not desirous of exposing it to danger, decided to send infantry and artillery with the cavalry. And so it came to pass that, during the decisive double battle of 14th October, the Prussian army, which, apart from this, was much inferior in force to the enemy, had further weakened itself by the despatch of 11,000 men in a perfectly ineffectual expedition against the French lines of communication. It was Müffling who, by these spontaneous additions to his report, aided in causing this mistake, which is one of the worst that were committed by the Prussian commanders in those disastrous days. Every report must also plainly distinguish between what has been actually seen, and what is of extraneous origin. After it has been committed to writing, the art of the reporter will consist in

putting himself faithfully into the situation of the recipient, so as to guarantee that everything is intelligible to him.

Valuable additions to its intelligence can be given by the cavalry by capturing papers. It first of all enters places in the enemy's country hitherto undisturbed, finds letters in the post office and telegrams at the telegraph office,* newspapers in the possession of private persons or in the hotels and restaurants. These are valuable means of acquiring intelligence. The cavalry must display a talent for finding. Even the most insignificant thing must not escape it, provided it be worth observing. Moreover, it is not difficult for enterprising commanders to animate this duty, as every man has a certain measure of pride in making discoveries, which only requires to be aroused.

In order to see much, the cavalry must spread itself considerably. If it is able to extend beyond the enemy's wings, that is a considerable advantage. With all the more certainty will it thus, at the same time, conceal the movements of its own army. But the veil, on the other hand, must not be too thin, in order that the enemy cannot break through it. Bodies of horse must follow the patrols, in order to prevent this.

The enemy will think and act in the same way. The natural consequence is, that the cavalry divisions which precede the armies speedily come into collision. Where the space between the armies in advance, and the nature of the terrain, do not preclude it, the operations are ushered in by a series of cavalry skirmishes. Only the side that succeeds in previously defeating the enemy's cavalry can chronicle valuable successes in the intelligence department. Then only will the individual officers and small detachments be able to penetrate to the enemy. As a matter of fact, it is only a superior force of cavalry that is of use,† for the weaker will, without fail, be very soon driven back upon the columns of the army corps following it up on march, and it is here rather an impediment than a help. It can then neither conceal the movements of its army nor yet discern those of the enemy. This circumstance must

* As is well known, during the campaign on the Loire the draft telegram book of a French station that was found gave the *ober-kommando* of the IInd army many disclosures.

† Wherein, of course, superiority must not be exclusively looked for in numbers, but in a correct proportion of efficiency and numbers.

be taken into account in the question so often discussed as to how much cavalry we ought to have. Like many other things in the military constitutions of modern civilised states, the number of cavalry depends upon relations of reciprocity subsisting between those Powers that may possibly be arrayed as enemies against each other.

Much has been spoken in modern times of far-reaching excursions of great masses of cavalry in the flank and rear of the enemy, which go beyond the object of intelligence, and have for their aim the destruction of railways, telegraph-wires, bridges, magazines, and depôts. The American War of Secession made us familiar with many such "raids," on which the names of a Stuart, an Ashby, a Morgan, and others, attained great renown. But, in attempting to transfer them to our theatres of war, we must primarily take into consideration the different nature, civilisation, and extent of the most European countries, but more especially those of the west. Then, regard must be paid to the different constitution of the forces. If a squadron of horse, improvised by a partisan, was defeated in such an enterprise, or if, when surrounded by the enemy, it broke itself up, that was of little consequence. It was only necessary that it was first paid for by some successes. Quite a different impression would be caused by the annihilation of one of our cavalry regiments, that by history and tradition is closely bound up with the whole army, and which, when once destroyed, cannot so easily rise again as can a volunteer association of adventurous farmers' sons.

The thorough organisation of the defensive power of civilised nations is also a preventitive to raids. Even when the armies have already marched away, squadrons of horse can, in thickly populated districts, with a little preparation, be successfully repulsed by levies. The French Franctireurs in the western departments attacked our cavalry, as soon as they saw it isolated.

In such enterprises on the theatres of war, small boldly-led detachments will, by cunning and celerity, sooner attain their object than great masses will by force. It is only the daring, enterprising spirit of the American horsemen that we can take as a model; the manner of carrying it out must, upon European soil, be totally different.

Our cavalry, for the most part, carries a good weapon. In 1870 it was not without such; for in quick determination it took up the chassepot rifle whenever it needed it. But in these days it has been properly trained for the use of the rifle and for fighting on foot; it has thus gained in independence.

It can not only defend itself better against surprises, more easily hold in check, and more readily deceive* the enemy than formerly, but it is, before all else, more capable of a vigorous advance. If too much is not expected of its fighting powers on foot (because a cavalry regiment, when it dismounts, is at best only a small body of infantry), and if the cavalry also does not forget that its proper place is in the saddle, the intelligence- and concealing-service will be the gainer. This advantage, let us hope, keeps equal pace with the increase of difficulties that has taken place in the last decade.

The saying of Frederic the Great "*In war good cavalry makes master of the campaign,*" has lost its importance, in so far as the *rôle* once played by cavalry in battle has diminished. *But even now an efficient and numerous cavalry force is the best means of controlling movements.* As in certain games the player who has the first move has the advantage, so will in war a like advantage accrue to him whose cavalry shows itself superior to the other, and who, consequently, more quickly finds his whereabouts, sooner makes his resolve, and opens the operations.

But the cavalry must not be merely efficient, it must also be well handled by the guiding authorities. They are responsible for many mistakes which are laid at the door of the cavalry. But the latter must be allowed the proper amount of liberty of action, and yet the cavalry divisions must not be let out of the commander-in-chief's hand. Whilst the masses of horse in former times were kept back, to be employed as reserves, or to follow up the enemy, in these days is evinced a tendency to send them at once, on the first day, far ahead in one direction or the other. This may, again, produce the bad result that a need may arise for this arm after it has been already disposed of. In the sending of divisions of horse ahead, and in

* That is, make the enemy believe in the presence of infantry

the choice of the direction in which they are to be despatched, a definite object must be kept in view. And the commander-in-chief must not only himself know what he intends to attain by it, but must also communicate it, with perfect clearness, to the cavalry.

The successes of the intelligence-duty are very dependent upon the character of the commands issued. The command so often given, that the cavalry shall advance to discover the strength and position of the enemy, is perfectly useless; for this order only denotes the natural duty of the arm. If, as often happens, it is instructed to discover the intentions of the enemy, the commander, as a matter of fact, demands of it that it shall perform a task which is really incumbent upon him. In both cases there is expressed a helplessness in the command, and this will entail uncertainty in the carrying out of the order. It is wisest to leave to the cavalry simply the questions which it is most desirable for the commander-in-chief at the moment to have answered; viz. whether here or there enemy's camps can be discovered, whether here or there towns are occupied, whether the vanguards or the masses of the enemy's troops have reached a given line, whether on a given railway or road troops are being transported or are on the march, &c. Such commissions, which cannot be misunderstood, will bring in clear reports, and from these the commander-in-chief can draw his own picture of the strength and position of the enemy, and guess his intentions. An important medium of news is found in skirmishes and battles. Both sides come into protracted contact with each other and feel each other. Frequently the sole object of fighting is to obtain information, though this practice is very seldom justifiable. The advantage is, of course, pre-eminently on the side of the victor, because he remains master of the field, upon which he finds abundant means for perfecting his knowledge of the enemy. The uniforms of dead or wounded soldiers inform him what divisions he has before him; reports, note-books, papers of all sorts are found on the corpses, and sometimes even a correspondence-carriage is captured. In short, a battle gives, as a rule, information as to the parts of the enemy's army that have been immediately engaged.

In some cases this information goes further. A letter of recommendation from Gambetta, which the Irish adventurer Captain Ogilvy, who was shot on the 27th November 1870, carried on him, gave the *ober-commando* of the II. German army a very valuable intimation of the next intentions of the Government of National Defence, which at that time, as is well known, planned an advance upon Fontainbleau for the relief of Paris. Of course for such freaks of fortune a fight offers more scope than marches and operations do.

But frequently the result of the fight is, in respect of the information obtained, far beneath expectations. The enemy's troops, after the battle has ended, disappear from view, and that thread of sufficient knowledge of the enemy, that has been spun with difficulty up to that time, is broken. The reason lies, as has been already hinted, in the fact that the fight engrosses all attention, and fetters all the senses of those engaged in it. And those, too, who do not engage in it, allow themselves to be too much influenced by its issue, instead of unswervingly going their own way. Even though the main body of an advancing cavalry division be repulsed by a more powerful opponent, it is not at all necessary that the whole chain of its patrols should retire with it. For the latter this is the very best time for seeing, now that the battle is occupying the attention of the enemy.

The activity of scouts may, during the period of the preparations for war, be of service, when the ordinary channels of correspondence are still open, and where, not as is the case during the battles, momentary information is not imperative. For operations, engagements, and battles, it is only the latest intelligence that is of value, and a spy is not capable of furnishing this. He lacks the possibility of corresponding by telegraph with the party whom he serves. In order to make personal communications, he must make cautious detours; and in almost every case he will come too late. Only when the war comes to a standstill, as in sieges, battles, and before strong positions, can he play such a part as formerly, when the rules of the art enjoined that a respectable man be gained over in the enemy's country, a clever spy given him as coachman or servant, and the latter thus pushed forward into the enemy's camp. Such roundabout measures are in the present

day but seldom of any use. As a key to the position of the enemy, to the feeling of the people, the army, of influential personages, the state of preparedness, the finances, &c., the detailed reports of cautious spies may from time to time be very welcome. But only very rarely can persons of the proper degree of education be found for this equivocal service. Such persons will, moreover, be frequently obliged, for the sake of their own security, to enter into relations with both belligerent parties. Whilst we receive intelligence from them, we make it also accessible to the enemy.

That the spy of romance, who on the evening preceding the battle arrives on a foam-covered horse in order to deliver to the commander-in-chief the "plan" of his opponent to a nicety, is only a romantic figure, needs no further discussion, since we have learnt to know the nature of "plans" in war. An important medium for the intelligence department is moreover the *press*, not only the great, but the petty local press. Of course even the best informed paper will neither be able nor willing to make known the position of its party in all entirety.

But even here what is worth knowing is composed of numerous petty details. Other flashes of light have often so far lit up the picture of the enemy's doings, that only a breath of wind is still wanting to rend asunder the thin enshrouding veil of mist. The presence of a high commander is mentioned, a letter published, in which the writer mentions a division of troops and its station, or narrates a deed of arms, exactly describing all the circumstances, the regiments, and commanders. Each detail by itself is perfectly unprejudicial, but may yet serve as a valuable link of a chain that at last leads to its aim. Add hereto a confiscation of letters, the stories of prisoners-of-war, the statements made by countrymen or travellers, and exact and important conclusions are possible. The national press cannot in wartime be sufficiently warned to caution. The want of news must be decidedly suppressed in its disastrous effects, much as on the other hand it must, in consideration of the feeling of the country, be treated with regard. It would be better to entrust reliable persons with the spreading of the news that is worth knowing in the country, than by attempting to close all sources of communication to incite unqualified and unreliable

persons to independent action.* King Frederick himself once acted as reporter of his head-quarters, and Scharnhorst proposed a special war-journal for the ventilation of distinguished cases of bravery, and of war reports of different sorts, as being a very useful remedy. It is, at all events, not sufficient to regard the press with mistrust, but it is necessary to direct their activity into proper channels.

International intercourse has from all time known, even in time of war, how to find its ways. The power of commercial interests cannot be under-estimated. A saying, which is not flattering for us Germans, is to the effect that a German does everything for love of money. But among other peoples it is no less the case. The prospect of gain helps over many a difficulty that otherwise appears insurmountable. Napoleon, who was perfectly well alive to the fact that the commercial world has always good intelligence, before the war, on 3rd September 1806, ordered Marshal Berthier to have all letters coming from Russia opened in Augsburg and Nuremberg, in order to find out what was going on there. The telegraph facilitates, of course, all communications in a manner never formerly dreamt of; it neutralizes almost completely the dilatory effect of by-paths. General von Manteuffel, on the 1st February 1871, was still engaged in a hot action with the rear-guard of the army of the East which had retreated by Pontarlier into the high Jura. On the morning of the same day, a telegram was despatched from Berne to the Minister of the Confederation in Berlin, with the intelligence of the army having passed on to Swiss territory. It was forwarded to La Barre, near Dampierre,† where the head-quarters of the General von Manteuffel had hitherto been; was sent on thence over slippery mountain-roads twelve miles by relays into his new head-quarters at Pontarlier, and arrived there in the night of the 2nd of February. It was the first formal confirmation of the fact that the enemy gave up the struggle, after the mountain valleys had re-echoed into the gloom of night with salvoes from rifles and the dull roll of artillery-fire.

* Oberst Blume, *Strategie*, p. 126. "The best means of being as far as possible just to conflicting interests, is shown in the regular publication by the army authorities of the war intelligence which cannot be kept secret from the enemy."

† South-west of Besançon.

Quite as quickly has much intelligence reached the scene of war through the medium of neighbouring countries. *Embassies, agencies in foreign countries* far from the theatre of war, can thus do the Fatherland good service. The international telegraphic communications must be carefully supervised. Upon the scene of the war, even the telegraphic communications of the enemy have, under certain circumstances, been made use of. During the campaign on the Loire, it was concluded, from certain signs, that apparatuses had been fitted by French Engineers to the German wires, and that messages were being read. Shortly afterwards the same mode was successfully tried by the Germans. The more artificial modes of procuring intelligence, reconnoitring in balloons, and balloon-post, mirror telegraph, subterranean wires, pigeon or dog post, communications by means of bottles, consigned to running water,* &c., belong rather to the province of fortress warfare than to that of war in the field. The latter will always, in the future, be too volatile to allow much scope to such methods. Only where there is a pause and a stop in the operations, is there a possibility that they can be applied.

Of an importance not to be under-estimated is the *organisation of the military reporter system within one's own army*. The case may occur, that the sum of all the information existing in the troops is perfectly sufficient for giving a picture of the enemy, but that the commander-in-chief, all the same, lacks the necessary intelligence.

To begin with, it is difficult for the inferior commanders who find themselves opposed to the enemy, to decide whether what they observe is of importance to the higher authorities. And then the officer of a lower rank has often a tremendous idea of the omniscience of the commander-in-chief, and erroneously believes that he must be already acquainted from other sources with that which he can announce. Upon a person not directly entrusted with the duty of giving intelligence, a certain modesty, and the fear of being suspected of a false ambition, will have a deterrent effect. Besides, everyone is sufficiently busied with himself and his own professional sphere. He turns the news which

* By this means, as is known, Metz endeavoured to open communication with Thionville, which lies further down the Moselle.

comes to him primarily to account for this latter, and easily forgets to communicate it further. The hotter the crisis, the fewer the reports; because leading personages lack the time to examine them. Cases are not rare in military history of a high commander eagerly awaiting news from his generals, whilst these are in possession of the wished-for intelligence, and yet the forwarding of it is not effected. *It may be laid down as a rule, that each and every commander must himself provide the intelligence he needs.* Hereby is not meant that each one shall on his own account send patrols and officers to keep touch of the enemy. No; rather the information that others have procured must be thoroughly utilised. But the connection between all separate parts must be carefully organised and kept going. The commander-in-chief must continually send officers from his staff to the army corps, and these latter, again, have their organs in the advance-guard, the vedettes, and in the cavalry that has been sent forward. It is essential that these messengers themselves shall be in no way occupied with the duty of leading troops, and shall be able to give themselves up entirely to the task of reporting. It has already been mentioned that it is necessary to entrust an officer in head-quarters with arranging this branch, in order that the machine may not cease to work at the moment when both commander-in-chief and chief of the General Staff are engrossed by the doubts that so mightily beset them. As a rule, success is not attained by the fortunate arrival of sundry very minute pieces of intelligence, but by the careful utilisation of many.

That considerable labour is entailed by the sifting and compiling of the material, as well as by the forming of a preliminary criticism of it, is self-evident. Nuggets of gold are generally found under heaps of sand. The intelligence system demands extraordinary industry. When many thousand letters written on tiny scraps of tissue paper fell, with the capture of the balloon posts, into the hands of the investing army before Metz, it appeared at first sight as if there were nothing of value to find in them. They had apparently, all of them, before being sent off, passed an official examination. But when they had at length been sorted, when the names, as well as the addresses of the senders, which were given, were compared, a fairly clear picture

was afforded of the disposition of the enemy's camps within the forts, and many valuable conclusions were drawn as to the frame of mind of the beleaguered.

Criticism must not merely investigate actual correctness, but must also assign to each varied piece of intelligence its proper place. The knowledge gained in time of peace is continued at first by the reports of ministers and consuls. Then these are broken off. Newspapers and notices of all sorts take their place. Spies give reports as to the feeling in the country, and give further intimation of the intentions of the enemy, in which what they have heard is wont to be mixed with inventions of their own. The reports of the troops, especially the cavalry, however, first supply the necessary basis to the results otherwise obtained. They exercise the right of confirmation, and make what has been hitherto obtained credible.

Yet the most difficult thing still remains to be done. That is *the turning to account of the information*. Military history usually only preserves to us things that have afterwards become important; and if they be read free from the confusion that surrounded them at the moment of action, it often appears inconceivable how an error could possibly have been made. But we must present to our mind the clothing of falseness, confusion, and inexactness with which it is covered, in order to understand how difficult it is to find out the right thing. The commander-in-chief, if he will base his own decision upon the confusion of intelligence, must generally be guided by the law of probability; and in the case of the enemy, too, must pre-suppose judicious action. But too rigid adherence to internal probability and an obstinate disregard of opposite hints easily lead again to preconceived opinions and fatal errors. How often does not the improbable occur in war! Therefore, when unequivocal signs repeat themselves, they ought to be considered possible and not lost sight of, nay, even believed in. On the one side, accordingly, firmness, and on the other elasticity of conviction, are necessary, without there being any fixed rules for the intervention of crises.

The general in command must, before all else, form his own conviction, and remain by it, until doubts arising from certain contrary signs are victorious, *i.e.* create at better conviction. The

national peculiarities of the enemy, the personality of their commander, the feeling of the moment, which may be supposed to exist in the opposite ranks—all these are things which must be taken into consideration; they are of influence. A thousand matters must be duly considered, and yet we must not waver long. It is neither right to believe too readily nor to mistrust too obstinately. The capabilities of the fancy, which must complete the picture by corner points and lines, as well as a psychological acuteness, which fathoms human peculiarities, are besides necessary to professional knowledge and experience. As the physician makes his diagnosis not from certain symptoms, but from the general physical and mental condition of the patient, so must the general also understand how to gain his opinion of the enemy from the totality of all signs. Prominent talents for it are inborn. Practice can only sharpen the view, not create it.

6.—*Marches, Journeys, and Quarters.*

"When we march along o'er hill and dale in the winding lane of the wood, with loose extended ranks, and music and song fills the air, my heart becomes larger, and I am rich in joyous hopes and anticipations . . . . It is, in truth, quite an æsthetic impression that is caused by the march-past of a martial host; but only one must not think of our parades. In the former case it is not, as in the latter, stiff lines of troops that present themselves to the eye, but in these open ranks the individual is discerned in all his peculiarity; and, beside the quietly progressing motion, there prevails much diversity and expression of life. Each individual gleams with his accoutrements through the green boughs of the young wood, and even when the man has disappeared from view, his arms still glance through the cloud of dust which rises high above the verge of the valley, and announces to those afar the approach of a hidden army. Even the toil which the exertion proclaims, when the ranks, with their guns and baggage, slowly mount the hill, throws a happy trait into the picture. The number of individuals that even a small company of soldiers presents to the eye, bound together to a long, tiresome, common journey, in order to arrive at length at the scene of countless perils—the

great and holy aim, which one and all follow—lends to this picture, in my mind, an importance that deeply affects me."

Thus does Clausewitz, in one of his letters dating from his youthful years, describe the march into the field of battle; and every soul able to feel with him, will feel the inner truth of this interesting sketch. The elevating impression which the gleaming columns make, when, to the rushing sounds of music, they pass through stirring towns, and the inhabitants rush to the windows, whilst the curious crowd collects in the streets and hails with loud shouts of triumph the passing soldiery, cannot fail to impress itself upon even a less poetic mind than Clausewitz's. The love of wandering awakes in the human breast, and the new countries, which one learns to know, excite the fancy. In youthful years we all of us gladly change scenes and modes of life.

But the exhilarating moments are, in a day's march, but rare interruptions, and one more readily enjoys them when riding on a good steed by the side of a column, than when labouring along on foot in the middle of the throng.

Slowness and toil are the characteristic features of the march of great masses of troops. These can be perceived when, after the music has ceased, the individuals are closely regarded, and not at the distance at which Clausewitz is posted. Here a poor fellow is limping along, with the exercise of all his self-control, the heavy knapsack on his back, and the rifle on shoulder, and we, too, involuntarily feel in our foot the pain which a pinching boot is causing him. There we perceive another, his face bathed in sweat, and his worn features clearly showing fatigue. Now and then an exhausted man is led to the side of the ditch and falls down. From hour to hour the column drags its way hesitatingly forwards, men, horses, and vehicles all covered with dust that hardly allows of the eyes and lips being opened. The sun shows no mercy, and sends inexorably its scorching rays against the sides of the hill along which the road winds. They emit an unbearable heat. Only the head of the column marches on with any degree of freshness; the further back we go, the more wearily do we find all dragging along; here song has even ceased. The longer the cavalcade, the more guns and heavy carriages that accompany it, the heavier is the going, and the more

frequently do stoppages occur, and an involuntary halt is caused. The smaller the mass of troops, the more easily and comfortably they march, and the quicker they advance.

In no respect does the fancy of the young commander, who only knows war from books, stand in need of rectification so much as with regard to the slowness with which great columns on the march move. In his mind he wields them according to his quick resolve, sometimes hither, sometimes thither, lets them quickly reach important positions, occupy them before the enemy, deploy and attack, without allowing for any interruption. But if this ideal picture be once translated into the naked truth, we find that the act does not, by any means, follow the thought so rapidly, but always remains far behind it. With a consumption of time causing loss of patience and composure, the columns advance, and the danger that the enemy will reach the longed-for goal before them appears to increase each minute. To the enemy, whom we cannot so narrowly observe as our own troops, fancy lends her wings, and in our mind's eye we see him hurrying up with gigantic strides.

And then it becomes patent that the orders were given too late, and that the time allowed for the movement was under-estimated. But there are no means at hand for communicating to the great mass of men the fire that is raging in the heart of the inexperienced. The heavily-weighted musketeers cast a tolerably indifferent look at the man sitting high on horseback, who is haranguing them, and at most do they step out better so long as they are immediately under view, only soon to fall back into the old pace. They know, by experience, that if they were to respond on every occasion to such an appeal with extraordinary exertion, it would soon be all over with their energy. The whole can only with the most infinite difficulty be brought out of its snail's pace, only often the thunder of cannon hastens the step, if it be a brave troop that hears its roar. Very remarkable are the extraordinary diversities in marching performances, which cannot always be explained by different nationalities and by the different natures of the soldiers. A march of two or three miles, which on the map appears insignificant, becomes an almost destructive fatigue; whilst, on another occasion, double the distance is covered without any

apparent disadvantage. Wind, weather, roads, internal condition of the troops, as well as the after effects of past exertions,* habit, which here, more than in any other operation of war, is the master, and finally, the influence of the commander who makes this demand upon his troops—are of influence. Where three miles† are considered by us as a good day's work, for which the soldier under ordinary circumstances requires six, but under difficult ones eight or ten hours, and is completetly exhausted by it, we find Buonaparte, when crossing the St. Bernard, achieving a like performance with his army seven days running. Five, six, seven miles were nothing extraordinary for him, when moving a whole army corps in an easy country. Murat's cavalry, in pursuing the Prussians in 1806, did more than four miles a day for weeks together.‡ In modern campaigns equal and still greater performances on single days have often been chronicled.

On the afternoon of the 16th December 1870, the 9th German Army Corps stood in readiness at La Chapelle Vendômoise, between Blois and Vendôme. Upon receipt of news that the German positions on the Loire were threatened, Prince Frederick Charles, about nightfall, set the corps in motion to march to Orleans, distant almost nine miles; and this although part of the troops, before arriving at La Chapelle, had already marched two miles, and had marched them for hours over wet fields. The roads to Orleans were bad, the stones ploughed up; meeting convoys, which followed the second army, impeded the advance. And yet the army corps reached Orleans the noon of the next day, without any significant loss. Ten, ten and a half, eleven German miles have been covered by the troops in thirty-three to thirty-six hours. But in this time the night rest,

* This was seen, for instance, in the march of the IInd Army from Metz to the Loire. Although the marches were at first not long, and were made in good weather, and upon good roads, yet considerable losses were occasioned; for all the troops had, immediately before the capitulation of Metz, undergone a very exhausting and exciting time under numerous hardships. Although the exertions of the march were subsequently increased, yet the losses diminished, because the soldiers gradually recovered, and regained the habit of marching.

† In every case German miles (4½ English = 1 German miles) are meant.

‡ Murat marched first in pusuit of Hohenlohe from the battle-field of Jena to Prenzlau, then behind Blücher to Lübeck, and thence by Posen to Warsaw, which latter place he occupied on the 28th November 1806. He had thus, within one and a half months, covered altogether 188 German miles (840 English, about).

as well as the waiting at La Chapelle, is included. One battalion which made the march could boast that it had not lost a single man; of 4,000 horses, thirteen had dropped.* This performance may be compared with the best on record. Suwarow marched from the vicinity of Alexandria to the Tidone in June 1799, also eleven miles, in thirty-six hours. Junot, in November 1807, in his march upon Lisbon, did the thirty-five miles' distance from Salamanca by Ciudad Rodrigo to Alcantara in only five days, and that through an inhospitable country and in a thick snowstorm. In a similar manner he continued his movement upon Lisbon; but the army, after enduring unheard-of losses, became completely disorganised. To quote instances from antiquity is always somewhat doubtful, because the accounts lack the strict historical criticism of modern times.

But these facts suffice to prove that he who only reckons upon average performances in marching may be the victim of great disappointments. The scope is a very wide one.

How great the superiority of an army which is better in marching than its opponent, follows from the conclusion that its commander is always in the position of being able to mass his troops more quickly than the enemy, and can thus attack him with superior numbers. Here, the proverb "to beat the enemy with boots" is applicable. During the battle, a momentary impulse can do wonders. That is impossible during the long time a march lasts. A tired-out column on the march can, even under the application of severity, be urged forward only with difficulty. After a few hundred men are lying in the ditches, the possibility

* A remarkable march was made by the Infantry Regiment No 14, in the period from the 4th to the 10th November 1870 from the neighbourhood of Metz to Paris. It accompanied the train columns and artillery of the 2nd Army Corps, the greater part of which was forwarded by railway, and covered forty-two miles in thirteen days. Its loss in sick, &c. amounted, during the whole period, to 136 men; out of a total strength of 2,547. It must be remarked that this regiment had, since the 18th August, lain before Metz, and had thus had no continuous practice in marching. The 10th Army Corps marched to the battle of Vionville on the 16th August, five miles; the 2nd Corps to that of Gravelotte, on the 18th August, five to six miles.

The 18th infantry division covered, on the march from Le Mans to Orleans, on the 26th January 1871, from St. Calais to Morée, five and a half miles; the corps artillery of the 2nd Army Corps, with the 3rd and 4th companies of the Infantry Regiment No. 14 in the Jura campaign, on the 29th January 1871, from Poligny, by Champognole to Nozeroy, through deep snow and across a mountain-ridge five and a half miles, and so on.

of punishment ceases; to throw themselves down and remain behind will no longer be dangerous for those who do not wish to go further. A troop is correctly estimated by the greater or lesser number of stragglers which it leaves behind it during a fatiguing march. Its internal discipline is clearly expressed in the way it performs its marches. How much the interest of the individual avails, is seen in the many instances in which armies, in other respects inefficient, after defeats suddenly develop a marvellous pertinacity and rapidity in marching. The fear of the pursuing enemy, the instinct of self-preservation impels in such moments each single soldier, and thus enhances the perseverance of the whole.

Practical preparation in peace for marching achievements is essential. It is naturally found in an army in which a lively martial life prevails; in its frequent field exercises and evolutions, its marches to the exercise-grounds and rifle-butts. But special marching exercises, in which great distances are covered merely in order to practise marching, must not be ignored. It is true that the institution of our national armies entails the fact that other soldiers are for the most part employed in the war, than those standing in the ranks in the epoch of peace immediately preceding. Yet the assertion so frequently heard, that it is, therefore, not worth while to accustom the troops to hardships, is a false one. The mechanical exercise is, it is true, very soon lost, directly the soldier retires into the reserve and adopts the civilian mode of life once more. But the tradition of great performances is of great importance; an exertion which, according to previous experience, a soldier has learnt not to regard as anything extraordinary, he endures far more easily than that which he does not know at all. If the fatiguing exercises and the long marches, in time of peace, are discontinued, the army loses by degrees the standard for measuring what human nature can without disadvantage endure, with a little good-will. The demands are lowered year by year. Commanders, as well as soldiers, gradually accustom themselves to regard a moderate performance as something great, and it will at last be so purely through the feelings of the executants.

Whenever at the height of summer at these fatiguing field-exercises an accident happens, and a young blooming life is sacrificed

to sunstroke, or in consequence of over-exertion, numerous voices are generally raised, who, on that account, would entirely do away with these hard exercises. People do not reflect how necessary it is to give experience to every soldier. This experience enables him, later, to face the inevitable hardships of war with quite a different spirit to what he would do were he entirely new to them, and he will all the better overcome the inconveniences. If everything were to be discontinued in peace, by which an accident might possibly occur, the mass of soldiers would be very hardly treated; for they would be rendered helpless and weak for war, when losses would be double.

The period of the distant "assemble-marches," which in olden time afforded the best opportunity for the recovery of lost habits, is in these days wanting. The troops are often marched immediately from the railway stations against the enemy. Leisure for drilling the troops thoroughly in marching, before the operations commence, is wanting. Hence the first demands made upon them must not be excessive. Had the 9th Army Corps been required to perform its above-mentioned march in August in the Palatinate, when the war first began, it would perhaps have lost a third or even half its complement. Only after the war has lasted some time, and when abundant war-diet and exercise has strengthened the nerves, and the weaklings have been eradicated, then and not till then, can extraordinary performances be demanded.

Much, of course, depends upon the marches being practically arranged. To discuss them in detail would lead us too far,* and here, too, we are concerned only with the rôle of marching performances in war on a great scale.

Fatigue for the soldier on march is caused less by the fact that he has travelled a certain distance, than by the length of time he is required to be under arms and baggage. Three, four, five, or even six miles is not a great day's march for a good walker. Let us only think of the holiday tours, which we made in youthful years through a mountainous country. That even ten miles can

* The reader, who interests himself in this question, can be recommended the chapter in Mackel's *Taktik*, "Von den Märschen," pp. 148–87, as being the best comparative account of modern times. Blume's *Strategie* treats of marches with reference to their significance for a great war in the fifth chapter pp. 81–90.

be covered on foot in a single day has been proved not merely by professional walkers, Albanians and Spaniards, but also certainly by German journeying apprentices and soldiers on leave, who wanted to reach home quickly. But strolling along in light dress freely and easily is something entirely different to marching in the ranks in uniform and with the full accoutrements of war. The time which a soldier is under arms must be restricted to what is absolutely necessary for covering the distance. *All unnecessary standing still and waiting must be avoided.* Accordingly orders are constantly changed. The leading vanguard must leave a great camp several hours before the last battalions, and it would be wrong to put the whole of the troops under arms at the same time. If the troops have been scattered the night before among the villages, and it is required, as was formerly done, to concentrate them before the march in a single place, in this case that part of an army corps forming the rear of the marching column would have to stand five to six hours under arms. They are, therefore, according to the position of their respective night quarters, united first of all into small groups, which then pour together from all side ways upon the main road, and attach themselves to the line, just as tributaries gradually form a big river.

Careful consideration for the arrangement of the marches is also of importance for the moral discipline of the troops. Every excess, which the simple mind of the soldier sees to be unnecessary, annoys him. All that is necessary he readily submits to, be it ever so much. His feeling in this matter is, as a rule, a correct one, and is in no wise regulated by a fixed measure. It has been already hinted that, for instance, Blücher's well-known saying, "Night-marches are more to be dreaded than the enemy," can lay no more claim to general validity than can any other maxim of this kind. By bright moonshine, troops march upon good roads without any difficulty, almost as rapidly as by day, and, even under unfavourable circumstances, good troops have accomplished night-marches at all times without detriment. The campaigns of Frederick and Napoleon furnish many instances of this. The 9th Army Corps marched, on the 16th December, late into the night, in order to accomplish four or five miles. The instance of the troops of General v. Werder has been already quoted; and how much even a

smaller body of troops can perform in night-marches has been proved by Commandant Bernard, when he, with his "Chasseurs des Vosges," marched from Lamarche to Fontenoy, close to Toul, in order to blow up the railway bridge there. He marched nearly 40 kilometres, upon bad roads, often even across country, and through woods and over hills in deep snow, with 1,100 men, in the night of the 19th January 1871, halted the next night, was, however, alarmed, and then marched in the nights of the 20th–21st, with 300 men, 35 kilometres, and in the night of the 21st–22nd even 60. Besides this, in this last night, he drove out the small garrison, and, after several hours' work, blew up the bridge. And, moreover, under difficult circumstances; he had twice to cross the half-frozen Moselle. Only the habitual disturbance of the night's rest is to be feared worse than the enemy, especially when the ways are long and the commissariat bad, as was the case in Blücher's march in 1806. In the same campaign the troops of L'Estocq's corps did much night-marching, and this, too, in the winter, and then without losing their capacity for operating. In the time from the afternoon of the 2nd February to the night of the 8th—that is, in five and a half days—they covered, mostly on by-roads, more than twenty miles, in great part in night-marches.* In spite of this, on the 8th, the famous march was made to the battle-field of Prussian Eylau, when the small corps decided the issue of the battle. The dread that has now become conventional, and which, in these days, regards a night-march as a sort of military deadly sin, needs rectification. In the wars of the future, in which great masses will be moved within a narrow space, and several corps will use the same road, night-marches will not be able to be dispensed with.

As a general rule, care must be taken that the soldier can take his full sleep; for, in the face of the great physical exertions of war, he needs it urgently. Far worse than single night-marches is the late issuing of orders, by which the troops are regularly kept awake until late in the night. The same is true of a too-early start. The so-called soldier's rule, that marching from the night into the day is better than vice-versâ, is false. The first means

* In this all the detours, as well as the marches to the quarters and rendezvous, are not computed.

that no one has previously enjoyed proper rest; the second that, with some exertion, the night-quarters are reached.*

Good order during a march renders it easy. But it should not be insisted upon as soon as disorder shows itself. But order ought only to have the object of easing the soldier; all pedantry that molests him is objectionable. *Extraordinary* alleviations, such as the carriage of the baggage in the rear, &c., are justified by *extraordinary* circumstances. But, if they cannot be introduced once for all, it is certainly not advisable to accustom the troops to them at wrong times, because then they will later miss them painfully.

Much has been said in text-books about protecting the march; but a body of troops on the march needs protection but little, for it is in motion, and ready to enter into battle. Enlightenment is the proper expression. The enemy is being looked for, and intelligence of him is needed. We know that the advanced cavalry divisions provide for this. It is customary, moreover, that a separate advance guard of all three arms should precede the marching columns. Tranquillity in the body of the troops is thereby enhanced. Otherwise, if shots are fired ahead, if a halt is made, or it is reported that the enemy is close at hand, restlessness and excitement spread through the whole column. Commanders and soldiers are fully occupied, and the march is interrupted. If an advance guard precede the troops half an hour, it is incumbent upon it to take upon itself all the consequences of *contretemps* during the march, and this produces in the mass that follows a comfortable feeling of security. All know that an impediment which the advance guard cannot overcome must arise before they are themselves engaged. But the advance guard must only be small. It was formerly the rule to employ a third or fourth part of all the troops in this duty. The justification of this proportion appears very doubtful. The commander-in-chief parts with a considerable fraction of his troops, and creates an independent will beside his own. Of the advance guard, the greater part always

* Meckel lays down the right rule, that with great bodies of troops only in special cases ought the start be made in the summer before 6 and in the winter before 8. The starting time of each single company, squadron, or battery will even then be at a quite early hour. They have, first of all, to join their regiment, and then one of the greater groups, their corps or their division.

belongs to the cavalry,* even where divisions of horse are at the head of the column, for only on horseback is it possible to keep open a proper connection with these latter, and to convey intelligence rapidly to those behind them. Some artillery will always be useful. This last arm is soonest able to determine whether an obstacle which the enemy causes is seriously intended. Even dismounted horsemen, who advance with carbine in hand, are easily stopped at a barricade, the edge of a wood, or a village, by a handful of determined enemies, whilst a few well-directed shells or shrapnels from the artillery dispel the phantom. An approaching enemy, also, can soonest be brought to a halt by a battery of field-guns, and forced to develop his strength. But the advance guard requires only a very small number of infantry. Formerly it was said that it must possess sufficient to give time for the long column following the main body to deploy. But *the experience of the late wars has taught us, that the main body never, as a rule, deployed, because the urgently-needed assistance required by the advance guard when struggling with a superior enemy demanded that the troops should be led by driblets straight into the battle.* This was quite a natural result. Whether the resistance which the advance guard meets with be weak or strong, can be but with difficulty perceived at the first moment. The commander of the advance guard who halts immediately this appears doubtful, would continually impede the march, and, should it then appear that but little was before him, he would be bitterly reproached. Every good soldier prefers to be blamed for too great audacity than for too great caution. If the undertaking turns out badly in the first case, he can, at all events, comfort himself, with King Francis, "Tout est perdu, fors l'honneur." That is impossible in the second case. Moreover, in an army which ever inclines to fresh energy, no leader will, after the war is over, be dismissed, whose character is that he was indeed bold and enterprising, though he on one occasion showed himself rash. Far more chance of being shelved has the man who is called well-informed and deliberate, but too cautious. We may be

* In high or inaccessible mountains, even in especially complicated and trackless country of another character, in passing through long and difficult narrows, in passes or upon embankments, where it is difficult to forge ahead on horseback, and large cavalry divisions cannot move, this formation will, of course, be abandoned and infantry be taken for the extreme head of all.

certain of this, that every courageous commander will, in doubtful cases, resolve to attack. And if he has, besides his cavalry and artillery, a whole regiment, or even a whole brigade, with him, there lies therein an imperative demand to try conclusions in battle. Who would like to have it said of him that, whilst at the head of such a force, he had allowed himself to be deceived or stopped by a handful of daring shots of the enemy, or that he had allowed a brilliant opportunity for dealing a successful blow to escape him? Rather dare!

An engagement can be easily checked, as long as only cavalry and artillery have had a brush with the enemy. The distance of the batteries is great, and the cavalry finds in its celerity the means of withdrawing from contact with the enemy. But if the infantry has once come into fire, it is very difficult to stop. It is impossible to recall simultaneously all the men. If the firing is stopped at one point, it begins again afresh at another. Signals can seldom be employed out of regard for the troops in the proximity. In the place where one's own musketeers cease firing, the enemy, no longer held in respect, makes use of the opportunity to advance, and forces them to re-assume their resistance. Thus, as a rule, the conflict surges to and fro, until the commanders perceive that things must be allowed to take their course. The greater the force of infantry engaged, the more does the possibility of breaking off the action fail.

For example, if the commander of the advance guard has only a single battalion at his disposal, he will with all the more readiness come to the determination to halt wherever he meets with opposition, in order first to allow free scope to the decision of the commander of the division or corps. No one demands of him that he shall really engage the enemy with such an insignificant force of infantry, though his force is still sufficient to suppress mock-fighting. Where in an advance the pioneering cavalry division, with two or three batteries and some advance guard of infantry, does not suffice to break through, there will, in most cases, be need of a serious engagement, in order to crush resistance; but of this the commander of the whole advancing mass of troops is the best judge. And thus we arrive at the conclusion that even in the case of a division and an army corps it is very often sufficient if

the pioneering cavalry is followed by a battalion as vanguard. It affords at once the proper protection for the artillery of the advance guard, where this does not consist merely of horse-artillery, which always march with the cavalry.

If it be seen beforehand that the advance guard will have a special mission to perform, if it be determined to secure a position by it, it must, of course, be made stronger, and, by its constitution, be rendered capable of successfully engaging in serious action.

Usage in the German army has naturalised an advance guard consisting, in the case of a division, of one infantry regiment of three battalions, three squadrons, a battery, pioneers, with sappers and miners, and an army hospital corps. In the case of an army corps, it is an infantry brigade of six battalions, to which is added one or both cavalry regiments belonging to the division,* two batteries, and the necessary supplement. Text-books describe these advance guards as models. They find intelligence, as well as undertake special commissions, and engage the enemy independently. At the same time, owing to their separation, an acceptable distribution of the whole marching mass is effected. They can, therefore, be described as being "advance guards for all eventualities," and, in so far, be described as models. But in war, but seldom will the situation be so little critical that some special reason will not determine what the constitution of the advance guard shall be, and it will not be wise to deviate from this instance. These normal advance guards have, at the same time, the apparent disadvantage that in the case of a division, a brigade and, in that of an army corps, a division is split up. It is these advance guards, further, that take the decision as to whether battle shall be given or not, right out of the hand of the generals in command.

Time for advancing is best gained by pushing the cavalry further ahead, so that the news of the approach of the enemy is obtained sufficiently early, and the decision as to when and where the advance shall take place can be made in time. In case of need, the planting of a few batteries which, with a lively can-

* With the exception of certain squadrons left behind with the main body and formed into a brigade.

nonade, compel the enemy to develop his strength, are a better means of making the requisite time than an engagement by a strong advance guard of infantry. The former does not oblige to anything; but the latter forces us, as a rule, to accept a decisive battle.

The case is different in marches on the retreat, when it is desired to avoid battle. Here strong rear-guards are necessary, in order, in suitable places, to make the pursuit uncomfortable for the enemy; whilst the main body remains the while in motion, and does not interrupt its march. But, in the case of the rear-guard an obstinate engagement is also an evil, because it renders its retreat difficult, easily entails losses, and the main body may even be compelled to front round and do the opposite of that which it is its purpose to do.* In the case of the rear-guard too, the artillery plays an important part, is, in fact, almost the chief arm. The tremendous effect of its far-reaching fire is the best means of keeping the enemy at a distance,† and that is the task of every rear-guard. It will be well to aggregate to it, for the time being, a larger number of batteries from the artillery of the main body.‡

The points of view from which the advance and rear guards are looked at, determine the sequence of the troops within each individual column. Behind the cavalry a division of artillery ought properly to come; that is, follow the arm that is always required for commencing the battle. But the fear that the cavalry might be thrown back and an enemy in pursuit enabled to throw itself upon the defenceless batteries, leads to the usage of allowing at least some infantry to march, at all events in front of the artillery. Of course all artillery is not placed so far forward, because otherwise the infantry behind it would arrive too late upon the scene of action. The corps artillery of an army corps, which in the marching column alone takes up about seven kilo-

* Only towards nightfall can the rear-guard, as a rule, without danger, form for a serious battle, because here the enemy lacks the time to make his superiority felt. Yet it is worthy of remark that the darkness in our latitude does not suddenly set in, and an active enemy can, even in the dusk, undertake much.

† The longer it holds out, the more does it, on this occasion, fulfil its destiny. The danger of losing a few guns must not be regarded, and never be a reason for prematurely withdrawing.

‡ If these are no longer required by the rear-guard, they can soon, on good roads and in quicker *tempo*, catch up again the main body that has, in the meantime, marched away, and thus do not even lose anything of the results of the march.

metres, cannot, on that very account, be well enclosed in a division, because the infantry marching behind it would then arrive full one hour and a half later upon the battle-field, where the commander of the division would all the time have been holding out with only one half of his troops. It will, accordingly, be interposed between the two divisions of the army corps, if the whole corps has only a single road upon which to march.

We have hitherto contemplated marches which are directed straight against the enemy. Now something must be said about such as pass by his positions or by the heads of his columns. We call them *flank marches*. They have the reputation of being difficult and dangerous undertakings. Military history, however, teaches us that, in flank marches, no more should be undertaken than theory allows of. Frederick the Great marched, in a flank march at Prague, round the right wing of the Austrians, and at Kolin even along their whole front. In those times, the armies, when they had once taken up their position for battle, were hard to move; for the order of battle must not be disturbed. Hence there was no great reason for apprehension that the enemy, on observing the flank march, would make a counter move; and the King never feared it, as a matter of fact. All that has now been altered. The separate parts of each army are independent. They are thus enabled to make counter-moves against the passing columns. But even in these modern times, it is difficult to put into motion a large body of troops that have just been developed in a direction not previously projected. Very frequently the right moment for acting passes by, or the general is, at least, doubtful whether it will not pass by, and so abandons the attempt. If the whole force of the enemy does not execute the flank march, a part having been left behind,* there will be danger, in pushing forward, of coming between both groups—the marching and the stationary—and of being thus placed in a dangerous predicament. And therefore it is that, even in manœuvres, flank-marches are successfully executed even within sight of the enemy.

Greater still, of course, is the danger, if, whilst a flank move-

* For instance, in beginning a general attack.

ment is being effected, the enemy is already in motion. Then we shall do well to take a greater distance from the heads of his columns, or simultaneously to draw him into an action by divisions other than those that are executing the flank march, and thus divert his attention.

On a simple forward march, it is, generally speaking, of no importance whether the army be met with a quarter of a mile nearer or further away, or must advance to battle in this place or that. In a flank march, on the other hand, there is a definite object in view, which it is desired to attain without battle and delay. In so far, every interference by the enemy is unpleasant. He is waited for with a certain suspense, and thus gains the impression of executing some difficult manœuvre. Besides, it is inherent in human nature to form a higher estimate of a danger which threatens either in the rear or on the flank, than of that towards which one is marching. The soldier in the marching column assumes that his commanders suppose that they have the enemy straight before them. If, then, he shows himself on the flank, the soldiers rapidly get the impression that they are surprised, and this destroys their confidence. Flank marches, which even the private soldier knows to be such, are easy to effect. That this is so is proved by the numerous marches within the investing lines of Metz and Paris in 1870, for the purpose of concentrating the forces. They were all by nature flank marches, as directed against the enemy stationed between and behind the forts of the fortress. But here the whole situation was clear to view, for every soldier knew that during the march they could only be attacked from the side where the fortress lay, and the feeling of being placed in an extraordinary position disappeared. The troops marched along or behind the investing line straight to the point threatened quite unconcernedly, because this appeared quite natural. No special precautions were taken, not even upon a single occasion.*

An army corps on the march, unexpectedly attacked on the flank, necessarily wheels round to that side, and forms a line of

* The protection afforded by the fortress-works in that line was, for instance, at the time of the battle of Noisseville in many places very unimportant, and the lines also, in order to bring troops enough upon the field of battle, were, as a rule, only occupied by the vedettes.

battle three miles in extent, in which there are various larger and smaller gaps. But it will never be so surprised that the front will have to be changed on the road itself. There will be ample time to reach a position on the side of the marching column. In this position the corps can be more rapidly concentrated than towards the head, because the distances are shorter. The rear of the marching column has, as is well known, to cover* twenty-four kilometres before arriving at the head, but, in order to reach a position three kilometres to the side, only eleven kilometres are required.†

It is only where a development of the marching column upon the flank is impossible, owing to the terrain, as for instance in a narrow defile, that the situation is worse. But the same terrain is here, as a rule, a protection against interruptions of the flank march, for the enemy would lack the roads for coming up.

The rules of the art of war advise the flank march being covered by a special corps, which is opposed to the enemy, whilst the forward march is executed behind it. But the presence of this corps will very frequently exactly draw the attention of the enemy to the movement. At best, it can only be weak, and invites the enemy directly to the attack, whilst it is intended to keep him off. Where, accordingly, the distance on the terrain affords some protection, such a measure must not be adopted, and action be restricted to a careful watch kept over the enemy by cavalry. It will be difficult to employ these troops sent as cover in any later operations. The movement thus as a whole becomes delayed. When, in 1866, Benedek executed his "well-ordered flank march" from Moravia to the Upper Elbe, he placed the 2nd Army Corps and the 2nd Cavalry Division against the province of Glatz. This contributed to delay the execution of the whole movement.

In the Napoleonic period, it was claimed that a line of battle must, under all circumstances, be of great depth. This will, however, be seldom the case, if, when surprised by the enemy on flank-

* Here I have taken the breadth of the position at four kilometres, and calculated that the troops at the rear of the column only need reach the wing.

† Only when the position should be taken up close to the van or the rear of the column would, of course, the march be of greater length than by *unfolding* towards the head. But such a case will scarcely ever occur.

march, it is required to change front. But in these days we can afford to abandon this formation, as our weapons of precision give a thin line great powers of resistance.

A dread of flank marches must thus be treated in the same manner as a dread of night marches. It will be well to overcome it. When, in the future, armies assemble and confront each other on a frontier, the possibility of a first success will lie in a rapid concentration of troops upon one point. This can only be effected by employing bold and rapid flank marches. It will especially be the case, so soon as we are confronted by a chain of forts (Sperr-forts), behind which the enemy has extended himself.

A certain precaution is imperative on flank marches. It will be well, by restricting the spaces between the single parts and by broader marching, to shorten the extent of the whole column. And, of course, the baggage and train must not defile behind the troops that are defiling by the enemy, if he be very close. They must proceed on the other side of the marching column, and parallel with it. For flank marches which must take place under the eyes of the enemy, the night may very well be utilised. In case the flank march is executed by a whole army, it must be provided that, in case of necessity, we are able to develop in strength towards the side. Here is a case in which, upon the road lying nearest to the enemy, two corps may be allowed quite rightly to follow each other, as close as possible.* But with such precautions sufficient has been done.

Clausewitz says: "the destructive influence of marches is so great, that it may, side by side with the action itself, be laid down as being an established principle." This is beyond doubt correct. Thousands are always marched to death, even when every precaution has been taken. Napoleon, in 1812, on his march into Russia in fifty-two days, during which only seventy miles were covered,† lost by disease and straggling, nearly 100,000 men. Here bad

* When towards the end of June, 1866, the IInd Prussian Army entered Bohemia, the 6th Army Corps followed the 5th upon the threatened left wing, which in a certain sense executed a flank march before the approaching vans of the enemy's columns. Both were, as is known, for a time placed under the sole command of the General von Steinmetz.

† Calculated in a straight line.

discipline was partly at fault. But, apart from this, the losses on the march would in any case have been very great. Even if those who are lost from a column are not dead, yet they are, as a rule, lost for purposes of the campaign, overfill the hospitals and train behind the army, and are a great burden.*

If the ordinary measure, according to which an army corps in a single day only advances about the length of its own marching column, may, in special cases, be much exceeded, the General, on each occasion, will have to calculate whether the loss probably caused thereby will be outweighed by the successes. Forced marches, when the enemy keeps out of the way, such as, for instance, might take place in Eastern battle-fields, must, in a material respect, be considered equivalent to a defeat. Even bad moral after-effects are not entirely excluded. They awake us to the consciousness of having wasted life and energy.

Besides marches, the transport of the troops plays a considerable *rôle* in these days. It was formerly only known on the sea. Napoleon, who knew how to make everything possible, in 1805 and 1806 transported his Guards, and, in 1814, the troops returning from Spain, in waggons. They covered each day about ten German miles. In our days, as we have seen, millions are conveyed by railway to concentrate on the frontier.

Where the war has already begun, the transport of troops upon the railway, if undertaken on a great scale, will meet with many difficulties. The lines are fully engaged with transports of all kinds, the staff of officials has been weakened by being employed for war purposes. After the exertions during the period of the general advance, there naturally ensues a certain relaxation. The rolling stock has been scattered. The proximity of the enemy is productive of disquietude, and the performances will not easily equal the expectations. To bring up reinforcements from provinces not threatened, is easier than to transport behind or upon the fronts on which the armies stand. But since,

* The formation of companies from the fatigued soldiers for the purpose of garrisoning places in the rear of the army, which was ordered by Prince Frederic Charles in 1870 in the IInd Army, turned out well. By this means troops were saved which otherwise would have to have been taken from the army, and the vigorous watch duty which they had to undergo aroused in those left behind the desire to join soon the army again.

considering the speed of railway journeys, circuitous routes are matters of no importance, we shall always have to reckon upon sudden transplantation of large masses of troops. The advantage of this is reaped by the defender in his own territory.

During the campaign on the Loire, during the period from 7 o'clock in the morning of the 27th October 1870 to the 28th October 9.20 P.M., 28,000 infantry of the French 15th Army Corps were transported from Salbris, in the Sologne, *viâ* Vierzon and Tours, to Mer, near Blois and Vendôme—that is, from the left to the right bank of the Loire—without the movement having been perceived by the German troops. Until 8 o'clock A.M. of the 29th October there likewise followed sixteen batteries, two regiments of cavalry, munition columns, &c. In November of the same year, 40,000 men of all arms, under the General Crouzat, travelled in eighty-eight railway trains from Besançon, on the Doubs, to Gien, on the Loire, and required three days. Of this movement, likewise, the news only reached the German head-quarters after the corps had reached its destination. Sometimes, during the Loire campaign, French military trains were despatched at intervals of ten minutes, or even followed one another quicker than this. On the other hand, the attempt made to quickly convey the army of General Bourbaki, at the end of December 1870, from the Upper Loire to the valley of the Doubs came to nought, owing to the want of the necessary preparations and of unity in the command. Two corps and the army reserve, consisting of a division, required seven days to entrain, and ten days altogether were occupied with the whole journey, which it was hoped would be performed in half the time. A corps which subsequently followed the army, required the period from the 4th to the 16th January to arrive at the Upper Doubs, near Belfort, from Nevers, because, in the interim, an unusual blocking of the traffic had been caused by the meeting of transports of troops, war *matériel*, and supplies. It would have been wiser to have relied upon foot marches than to have insisted upon utilising the railway, particularly the single line along the Upper Doubs. Small railway-stations there rendered unloading difficult; the laying of temporary lines and sidings was impossible to effect, in the hurry, in the narrow valley between the river and the walls of rock.

Still less will the attacker in the enemy's country be able,

during the operations, to think of transporting troops on a large scale, even though he take pains to repair the railroads occupied by him, and to utilise them.* As a rule, they only suffice to convey to the army its necessary supplies of provisions, ammunition, reserves, &c.

The advantage which railway journeys possess over foot marches is clear from the fact that, whilst for the latter eight miles is regarded as the ordinary performance for twenty-four hours, a train of moderate speed covers ninety miles in the same time. The exertion will, in a certain way, be somewhat greater in the case of the railway journey than in that of the march, on account of the want of a night's rest. But it must be remembered that troops, after leaving the railway train, can at once do a moderate march, and, after the long sitting in the waggons, hail it, as a rule, with pleasure. The difficulty in transporting large masses of troops by rail consists more in loading and unloading than in conveying from one point to another. In the case of single lines of rail, which have no separate metals for the returning trains, a block in the traffic very often arises, and thus their capabilities must be much less trusted, and can with much less certainty be depended upon than double lines. As a rule, twelve trains a day is regarded as the greatest performance of a single line; eighteen a day, of a double. Colonel Blume, after the experience of 1870–71, considers it advisable to assume only eight

* The following instances of the utilisation of railways in the enemy's country during the French war on the German side may be given. The 14th Infantry Division, which, towards the end of the year 1870, besieged the fortresses on the northern frontier of France, was transported thence by railway to Châtillon sur Seine in the period from 7th to 14th January. On the 14th January the combatant part of the division was concentrated at Châtillon. Then followed the train and the columns.

After the fall of Strassburg the Landwehr division of the Guards was conveyed to the army before Paris. The shipment was begun on the 7th October, was obliged to take the very busy line *viâ* Frouard, and did not arrive in Nanteuil until between the 10th and 19th October.

Similarly was the 2nd Army Corps conveyed from Metz to Paris. The 3rd Infantry Division, ten battalions, a squadron of cavalry, four batteries, a company of Engineers, a detachment of the Hospital Corps, a field-bakery column, a field hospital, a provision column, and 120 waggons strong, covered the distance altogether in twenty-four railway trains in the period from the 3rd to the 8th November. The 4th Infantry Division began to load in Pont-à-Mousson at noon of the 26th October. On the 6th November the combatant part of this division had, with a detachment of a hospital corps, a field hospital, and the necessary columns assembled at Lonjumeau. A part of this corps marched to Paris on foot.

and twelve instead of those figures. By so doing, we would certainly be on the safe side. It is as much as—on the French side in 1870—was achieved in those transports, of the slowness of which there were so many complaints.

Where circumstances would make it appear feasible, railway-transport will be preferred to the march; for the losses of the march will be saved by the railway journey. In every case, it requires a special calculation as to whether the goal will be soonest reached in the one or in the other manner. An army corps, as an ordinary achievement, requires on a single line eleven, and on a double seven, days in order to get under weigh with all its *matériel.* On foot, in eleven days it can cover nearly thirty, and in seven days twenty miles (German). Only when the available railway tracks are longer than these distances, does the whole army corps gain in time. But very often it is only necessary to have a part of the forces quickly on the spot, and they are then sent ahead by rail, whilst the rest follow on foot.* Both means of transport may often be thus combined; that the infantry is conveyed by rail, whilst the artillery, cavalry, train, and columns, march, and cover greater daily marches than ordinary. If the nature of their employment at their destination requires it, the infantry is given some artillery and cavalry. For greater safety, on the other hand, the marching part of the corps is accompanied by some infantry. The extraordinary importance of railways for supplying and keeping the armies, as well for the conveyance of combatants, will always cause the invader of the country of the other to turn their services as quickly as possible to account. The reparation of destroyed railways progresses with the advance of the army. Temporary lines of connection, like the one laid in 1870 between Remilly and Pont-à-Mousson, for the purpose of avoiding Metz, will in future be built to a greater extent than hitherto. Railways are in these days indispensable for fortress-war, since modern siege-engines cannot, where the distances are long, be brought up on country roads. Apart from the heaviness of the guns, the amount of matériel is so great that, for instance, for organising the unbroken transport over about twenty German miles, 20,000 horses and 20,000 men would be required. In these days, in

* Meckel, *Taktik* (p. 23), gives a number of interesting instances of this kind.

besieging a great fortress, about 7,000 to 8,000 cwts. of ammunition is fired away. The utilisation of railroads is accordingly here a *conditio sine qua non*, for such a weight of metal no army would wish to bring up continuously on waggons upon country roads.*

Sea transport of troops has, in contrast to the railway journeys, and in spite of the rapid development of the maritime traffic, made no important progress.† It is true that the speed approaches that of a moderately fast railway journey. But no State can keep on foot fleets of transports sufficient to convey whole armies. Even for a single army corps, only France, in time of peace, possesses an adequate State-transport-squadron. All powers are accordingly obliged to press into their service merchant-ships, mail-boats, and other steamers belonging to private enterprise. But the great inconvenience results that these ships all require a lengthy

* For the utilisation of railways in war, the following figures are conclusive. A railway train can take a battalion, something more than a squadron; so that three trains may be calculated for a cavalry regiment of four squadrons, or a battery, or a column, and so on. An army corps, with all its matériel, needs, accordingly, ninety railway trains. An infantry division (without train) twenty. A cavalry division (with no train) also twenty. By this can be computed how many days such a mass of troops requires for its conveyance. If, as above, for instance, eight trains be assumed for a single line, and twelve for a double, per diem, the whole army corps will, on the first-named, be got under weigh in eleven, and on the second in seven and a half days; the infantry or cavalry division in two and a half and one and two-third days respectively. If the time occupied by the journey in one case be added, we obtain the time which is required to convey the troops in question from one place to another. As a military train makes at most four German miles in the hour, for example, for being transported 100 miles (German):—

An army corps upon a *single line* would require 12 days; a double, 8½.

The advance-guard of an army corps (*vide* Supplement) would require 2½ days; a double, 2.

The infantry or cavalry division would require 3½ days; a double, 2⅔ days.

As the instances given from the French War prove, these performances can be on occasions increased to an extraordinary extent. Cf. *Über die Eisenbahnen im Kriege*; Blume, *Strategie*, pp. 91–95; Meckel, *Taktik*, pp. 21–25.

† We must remember that only Europe is here considered. During the Civil War in America the sea transport of troops played a great *rôle*. The army of the Potomac, under MacClellan, 80,000 men strong, was conveyed between 17th March and the 4th April 1862 on shipboard from Alexandria on the Potomac to Port Munroe on the James River. The resources of the Americans in means of transport, and their energy in overcoming technical difficulties, rendered this result possible. In Europe the most remarkable sea-transport of troops of modern times was that of the allied army at the beginning of September 1854, from Varna and Baltschick to the Crimea; 63,000 men, with 207 guns, were conveyed on 330 ships. But all preparations for this magnificent performance were able to be made at leisure, and the voyage performed without any interruption.

refitting of their internal arrangements so as to make them capable of conveying troops. Tables, benches, and clothes-pegs must be fitted, hospital requirements, kitchens, &c., arranged.

Loading and unloading is difficult. The great steamers, each of which, for instance, is capable of containing a battalion, have so high a deck that horses and boats can only be got on board by means of cranes. The smaller steamers, such as ply in the Baltic, have, on the other hand, not sufficient accommodation. A single infantry division, with the necessary complement of columns and train, which, owing to their independent employment, are indispensable, would require nearly fifty of such vessels, whilst a like fleet of great transatlantic vessels would contain an army corps.

For landing, when harbours are not available, each ship requires 300 metres of coast, a fleet of transports with an army corps, about three miles (German). As such extensive landing-places can rarely or never be found, landing must be effected gradually. To effect this, it is, of course, requisite to disembark into small vessels, boats and luggers, in order to pass through the shallow water that is too deep for wading. The caprice of the weather makes all calculation as to time impossible; it may entirely prevent the landing being effected, and a storm may cause a catastrophe. How much great squadrons of transports are exposed to attacks on the part of the enemy is self-evident. The uncomfortable torpedoes increase the danger. It is necessary to be perfect mistress of the waves, so as to be able, with any degree of tranquillity, to undertake the transport of troops on the sea. Finally, the troops which can be conveyed in this manner, play only an insignificant part in war, on the great scale on which it is conducted in these modern days. The expenses attendant upon sea-voyages are, besides, disproportionately great. Only England, by reason of its situation, its wealth, and the number of its State and private ships of the greatest size, is in a position to perform anything great in the way of transporting troops and employing them across the seas. Other Powers must confine themselves to exceptional cases, when there is no other remedy at hand. Among them, France has a considerable start in such superiority.*

* In February 1871 the 22nd French Corps, 18,000 men and 10 batteries strong, was in a short time conveyed from the Northern theatre of war to Cherbourg by

River navigation may be very serviceable in conveying infantry. It will be especially utilised to provision the armies. Frederic the Great, on his various campaigns in Bohemia, regarded the Elbe as a main line of communication. The Ober-Kommando of the Second German army, in July 1870, during the advance to the front, organised a flotilla of six steamers and numerous tugs, to serve on the Rhine between Worms, Mayence, and Bingen as a movable magazine. The vessels were filled by purchases made in Holland (which, however, soon closed its frontier), the Lower Rhine, and even in the place of concentration, as well as from the available stores in the fortresses of Coblence, Cologne, and Wesel. When the rapid advance of the armies into France took place, the ships' stores were delivered to the great magazines in Bingen and Worms.

Inseparable from the consideration of marches and transport is that of quarters. The soldier who, after a fatiguing march, finds good quarters, rapidly recovers himself, and gains strength for the following day; whilst, bivouacking in the open field, exposed to wind and weather, he would, perhaps, have become incapable of continuing his march. A prudent regard paid to quartering the troops is the best means of counteracting the losses caused by the march. We have now arrived at a pitch of civilisation that has disaccustomed us to regard the wood as our night-quarters and the moon as our sun.

If the troops, immediately on the outbreak of hostilities, bivouacked in camps, they would soon be destroyed, without requiring battle for this purpose. Let us only reflect how much our troops suffered during the first rainy days of August 1870. Bivouacking in the open must, of course, when circumstances demand, not be shunned; but it is and remains a misfortune. In the future, attention will be paid to bringing the troops, as far as possible, and for as long a time as possible, under roof. Especially is this at the commencement of a campaign indispensable, when much in the organisation must shake into place, and when the greater part of the soldiers only by degrees begin to accustom themselves again to a military life.

ship. On the 16th July 1877, forty-nine Turkish batteries, under Suleiman Pasha, were embarked in Antivari and landed from the 19th on in the mouth of the Marica.

The worst quarters are always better than the best bivouac. But bad quarters are also an evil for the condition of the army. To avoid them is in no wise the result of effeminated habits, but is enjoined by very prudent considerations.

He who has seen war, knows how rapidly, in a place over which a living stream of soldiery pours, the means of existence become exhausted. Shops are emptied or are closed, supplies disappear, and their importation ceases. A wide distribution of the men is therefore necessary. The affluence, occupation, and mode of life of the inhabitants regulates this. In the open country, where only agriculture is engaged in, one man's billet is, as a rule, reckoned for every soul, if the quarters are to be comfortable. In the case of manufacturing towns, industrial villages, mining districts, and larger towns, an exception must, of course, be made. Berlin, with its million of inhabitants, would never be able to accommodate 1,000,000 soldiers; whilst a tolerably well-built village can shelter even more than its population. Under ordinary circumstances, an army corps needs on the average eight to ten square miles of country. That is exactly the square of the length which it takes up on the march, without its train.

Bivouacking in the open, certainly makes it easy to set the resting masses again in motion. A quarter of an hour after the order has been issued, it can commence. If they can be allowed to form in a broad front so that it will not be necessary to thread back into a marching column, a great saving of time will be effected. The troops slowly arriving from scattered districts would be obliged first to form for such a purpose. In bivouacking, too, the marches to and from quarters are saved. But only under specially pressing circumstances are the disadvantages hereby removed.

To the latter belongs that troops in camp are much more readily discovered by the enemy and their strength ascertained, than those lying in quarters. When the night is dark, the reflection of great bivouac fires can be seen many miles distant. By daylight, especially towards evening, from a sufficient height, the smoke can be descried a like distance.* And yet only in exceptional cases

* From the Church-tower of Pitteiviers, at the end of November 1870, when the sun was near the horizon, the smoke of the great French camp at Gidy and Cercottes, before Orleans, could be discerned, although five German miles distant.

must troops be prohibited from making fires, if they are not to suffer intensely.

Napoleon, in the year 1812, allowed the "grand army," when advancing from the Vistula to the Niemen, to bivouac incessantly —hence the rapid forward movement of his masses of troops, but also their great losses on march. The opposite mistake was made in 1806, on the retreat of the Prussian army, when the troops were distributed at such great distances among villages and towns in order to provision them, that the marches were intensely increased, and the night's rest was lost. The old tents have been entirely abandoned, because they either much increase the baggage of the army, or encumber the individual soldier too much.

In these days, accordingly, as soon as operations are in full swing, there is only one kind of quartering; that is as follows: as soon as the day's march is at an end, the troops are distributed among all accessible places, with total indifference as to whether by this means rules are broken and all statistics and authenticated proofs utterly disregarded. In every village, each company accommodates itself as it best can. He who cannot find quarters, remains in the open, builds himself a hut of bushes or straw, and finds even shelter under garden walls against which doors, boards, &c. are leant. For this kind of war-lodging the name "*ortschaftslager*" has been invented, which may be retained as being very descriptive.

In olden times, camps were considered requisite for the safety of the recumbent troops. It was believed to be otherwise impossible to draw them up sufficiently quickly in case of an attack made by the enemy. Quarters were always conceived of as being very scattered. But since the art has been learnt of packing closely together in the houses, and the disarrangement of the ordinary order of battle a matter of no consequence, the fear is groundless. It is at variance with the simplest rules dictated by practicability to encamp in the proximity of a village and then to occupy it quickly in the event of an attack being made by the enemy. It is better to quarter oneself there at once. In the village, watchfulness and readiness for combat can be quite as well observed as in the open. The separate divisions of the troops lie together in great buildings and farm-houses. Each body can find its whereabouts at the proper time, prepare for

defence, and arrange for it in every way. Then, as soon as the enemy appears, all will be ready, earlier than it would be the case had the troops bivouacked in the open and then in perfect darkness entered the village to defend it. Only the precaution must be observed, that the troops must from the first be quartered according to certain tactical dispositions ; that is, each must lie in that part of the place which he must, in case of need, defend. Even at the times of great decisions, when considerable masses are concentrated within a very narrow compass, and straw and bush-huts cannot be quite avoided, as many troops as possible will be placed in the neighbouring villages. The advantage of this quartering does not alone consist in the fact that the troops are resting in shelter from the bad weather, but also in the fact that they find cooking appliances, which facilitate the preparation of their food. This is, in the open, and with incomplete appliances, always difficult; and when the wind is strong quite impossible. The dust upon the sand-fields of the Mark makes sometimes, even in peace-manœuvres, all that is cooked uneatable. Moreover, in the most densely-packed places there can always be found a welcome addition to the supplies the columns and provision-waggons furnish. Thus the advantage of better food is also combined with the advantage of quarters. In the winter campaign, 1870–71, the German troops even did not hesitate, even during the battles, to seek night-quarters in the villages and farms lying close to their posts. This was the case at Beaugency, at Le Mans, and on the Lisaine. Even should a body of troops be for once surprised and suffer losses, as at Beaugency, yet this disadvantage is as nothing compared with that which results to the troops when, out of apprehension for such disasters, they are allowed to bivouac permanently in the open. The worse the time of year and the weather, the more necessary will it be to encamp in the villages (*ortschaftslager*) even in crowded quarters. A few nights unnecessarily spent in the open are on a par with the effects of an unfavourable battle, and at all events worse than night-marches. The most difficult thing will always be, of course, to stable the horses, especially those of great masses of cavalry. The horses and men of the columns and trains find some shelter with the waggons.

Every body of troops, which has a place assigned to it as

quarters, is naturally jealous of its temporary right of possession, and looks askance at the uninvited or the trespassing guest. As it is practical in every large place to distribute the various quarters among the different troops, so must from head-quarters the various authorities be exactly instructed as to the ground they are to occupy; otherwise conflicts are unavoidable. In matters affecting quarters and commissariat, selfishness is the rule. Thus the commander-in-chief for the army corps, the general commanding a division for his division, the corps artillery, the trains and columns, all mark out certain *rayons* within which they may severally spread themselves out. But here it is not sufficient merely to define boundaries, but it is necessary to add to which body the places situate within them shall belong.

The form that the *rayons* shall have, is dependent upon circumstances. It is essential to know what is next going to happen. Whilst in motion, long narrow strips of land of the depth of the columns on march, on either side of the main road, are best chosen. The troops are "echeloned" upon it, to use military language. It is also quite correct when the hindmost troops of an army corps are quartered three miles from the extreme van; for they require this distance, in order to be able to attach themselves again to the marching column as soon as a start is made.* How far it is allowable to spread out right and left, depends upon the situation of the roads and villages. If a deviation of more than a mile from the main road were made, and then the particular body of troops were the next morning required to move back to the road, a full second day's march would be expected of it, and it would probably be better to get the requisite room for quarters further ahead. Seldom will troops go further afield than half-a-mile (German) from the main road. In this case, certainly, the space necessary for comfortable quarters is not attained, but the quarters will, all the same, be sufficient for a single night. If a halt is made, or if a longer stay be proposed, the troops can spread further. For this latter purpose, a square or circular form is best for the *rayons*, in the middle of which the head-quarters are best stationed, as then the communication with all parts is easiest. The same thing

* The trains and columns look for their shelter further back.

is done when a defence is to be organised on the spot, because it is essential to be able to concentrate the troops rapidly.

In the several villages, all three arms mix, in order to make proper use of the existing houses and stables. But it immediately follows, that the normal order of march, in which the whole movement has been begun, cannot be for long maintained. According to the position of the quarters, smaller groups of all three arms are formed within the larger unities, viz. within the army corps and the divisions, the brigades with some cavalry and several batteries, which are also combined for the march. Only the corps artillery the commanding general will prefer to keep out of the confusion and allow to follow in a compact body.

But even here unnecessary marches of the several parts must, as far as possible, be avoided; for every movement entails an expenditure of strength, as does an engagement. The endeavour to restore the original tactical disposition of all normal unities must never be abandoned; but it is necessary to cleverly discern the opportunities, when this can be done without imposing extra exertion upon the troops engaged.

In this sketch of marches and quarters, I have not taken movements of troops across large barren tracts, such as, for instance, Napoleon passed through in 1812, into consideration. Housing will here be an impossibility; to say nothing of food-supplies from the villages occupied by the troops. Camps must be resorted to, but, in consequence of the inclement climate of the inhospitable country, their effect upon the troops is worse. Hence it is necessary to consider here how far unusual means of shelter, tents that have been discarded, or, where a longer halt is made, barracks on a great scale, can be utilised.* As they must live much more entirely upon the provisions they carry with them, than they would do in a fruitful and thickly-populated country, the provision-waggons must not follow at the rear of the marching columns. Otherwise, upon the bad roads, they would but rarely reach the head of the column, and then never at the proper time. Some

* It will be necessary to provide for the material for building barracks being stored in large quantities close to the station where the troops are unloaded on the frontier, as well as in the fortresses, because it is important just in the first days of the war not to allow the troops to suffer; but, on the other hand, a conglomeration of men ensues which makes bivouacking in the open otherwise unavoidable

parts of the commissariat must be attached to the troops and wedged in between them. Similar deviations from the usual order occur under such circumstances much more often than is advisable.

In the dispositions for the march and the quartering of the troops, the care, cleverness, and experience of commanders, and especially of the general staff, is pre-eminently shown. In war, there is much more marching done than fighting. All the more necessary is it, therefore, to devote all possible trouble to lessening the difficulties attendant upon the march.

Now that we have studied the manner of moving troops, it is next fitting to examine their employment for the ever-changing ends of war. But, for this purpose, an examination of both so-called prime forms of battle is first indispensable.

7.—*Attack and Defence.*

"Offensive or defensive" was ever a favourite theme with war theorists, for the question, which form of operation of the two is the stronger, is quite as attractive as the various ways of answering it, according to the thousand circumstances which we presuppose. Clausewitz says: "The defensive form of war-waging is in its nature stronger than the offensive." Blume maintains: "The strategic offensive is the more effective form of warfare." Treatises upon this subject sound for the most part as though attack and defence were exclusively a matter of free choice on the part of the combatants. Instead thereof, this is hardly ever the case. Circumstances will from the first assign to the one side the offensive, to the other the defensive. It is, therefore, much more important to study the peculiar demands of both forms, rather than to make a comparison between their inherent advantages and disadvantages. It is doubtful whether, altogether, it is correct or not to attempt a comparison.

As a rule, *strategical and tactical offensive, and strategical and tactical defensive* are distinguished from each other. At the root, both species are the same. The strategical offensive denotes attacks generally, both movement and battle, directed to the end of defeating the enemy. The tactical offensive implies

only the aggressive behaviour on any given battle-field. It is the apex where the strategical attack ends. Strategical defence consists in repelling on a great scale; tactical, the warding off of the attack in the position we have chosen. Though the nature of the case may not justify the difference, yet it is often convenient to use names, in order to be able to state shortly which special act of attack or defence is intended.

A modern writer has rightly pointed out that the historical offensive must precede the strategical. The same is true of the defensive. The latter will in most cases depend upon a general repulsive, the former upon an aggressive attitude of the nation.

The historical is, of course, the starting point; the military, that is attached thereto, having been already granted. No one marvelled that the Turks in 1877 from the first adopted a defensive attitude. Certainly no one ever thought for a moment of strategical motives, but accepted the fact as something quite natural, because Turkey had entered upon a stage of historical development, in which the defensive was alone possible; whilst Russia, driven violently forward by the idea of Panslavism, was naturally forced to attack. Accordingly, even before the war, the historical standpoint dictates to the belligerent the manner in which he must wage the war. States, both historically and politically offensive, seek the objects of their aim beyond their own frontier, and must accordingly act on the offensive. The state that has arrived at self-satisfaction, naturally acts on the defensive.

Exceptions are possible. Military misunderstandings may compel a power ordinarily aggressive to act temporarily on the defensive. All states that are ceaselessly striving to escape from narrow limits to more extended ones, pass through epochs, in which they see themselves confronted by a combination of foes, and are obliged to confine themselves to the defensive. Such times has Rome, and such times has Prussia experienced.

That both parties take the offensive, is only conceivable in the case of a war between two equally strong states, which have a like military organisation. A difference of a few days in the preparedness for war, in these modern times, forces the belligerent who is in arrear to take the defensive.

Napoleon I. by his bold and rapid aggressive wars established

the opinion that the preference should undoubtedly be given to the offensive. The progress that fire-arms of all kinds have made since those days, makes now the opposite appear correct from a tactical point of view. Since a strategical offensive is, as we shall later demonstrate, only practicable when in combination with a tactical offensive, the disadvantage which is inherent in this latter form would make its effect felt in the strategical also.

According to this, the party upon whom a defensive is enjoined by all the circumstances, being at the same time the passive part, must at once reap the advantage. This internal contradiction would show that the idea of the greater strength of the defensive is, in spite of all that may be said, born of deception.

True, that in action in these days the defender sweeps the field clean with his weapons of precision within a thousand *metrès* of his lines. A broad deadly zone, ten times as broad as was formerly the case in the days of the smooth-bore rifles, must be passed by the attacker. The protection that the terrain, walls, and artificial means of strengthening his position afford—all these are of advantage to the defender. He is at rest and prepared for the attack. Fire can be unceasingly vomited by the iron mouths of his cannon, whilst the attacker must often desist from firing, in order to move forward under the most trying circumstances. In so doing, besides the loss and the danger, he must also bear the fatigue. In the defence, things are simpler. The command can rest entirely in the supreme authorities; within the army, not nearly so many separate commanders will be in activity. The providing of the troops with ammunition, the bringing up of the existing reserves will be easier, as only a definite line is asserted; the troops are, moreover, not detached on an advance, split up and confused together; directions are not changed, and on one side the attack is not stopped, and on the other renewed with redoubled vigour, such as offensive action always entails.

Besides, beyond its tactical province, the defensive is sure of some advantages. The commissariat, the bringing up of reserves of men and horses, and supplies of all sorts, is less risky, because the army is not far from its resources, frequently returns to them, and the lines of communication are not, as in the case of the offensive, continuously lengthened. In the case of the defensive,

more strength is put forth, in so far as the combatant on the defensive can employ many troops, which the attacker is not capable of bringing up. On the side of the defender, the garrisons of fortresses, which are within the theatre of war, are of great service. They attract the forces of the enemy, be it only to observe them. The attacker cannot bring up his own fortress-garrisons, because he must not leave these strongholds without guard, and must also have before his mind the possibility of a repulse. Besides, garrison troops are, for the most part, unsuited for offensive service in the enemy's country. The defender can employ forces of this sort in hilly country or in fortresses. He is even aided by public levies to arms, which the attacker cannot for his purposes set in motion. The citizen and the peasant of advanced years take up arms to defend their own hearths, but not to assist an army which has penetrated into the enemy's country to extend its conquests.

It is correct to say that the attacker must reckon upon more losses and exertion than the other. He is subjected to this great disadvantage, that his absolute strength is, as he progresses, weakened to a much greater proportion than that of his opponent, the defender.

Firstly, the attacker enters the enemy's country and must occupy it. He must penetrate through a more or less complicated system of frontier fortresses, must besiege a number of them, or must permanently watch them. Both entail expenditure of forces. As he penetrates further, his lines of communication are lengthened and are rendered more unfavourable. The army daily needs more small garrisons at its back, in order to ensure its base of operations; and the bringing up of the reserve drafts of men becomes, in like measure, more difficult. Armies acting on the offensive melt like fresh snow in spring. The frontier is passed with hundreds of thousands, and only with thousands after the lapse of a few months is the war being prosecuted in the heart of the enemy's country. Napoleon, who, in October 1805, appeared on the theatre of war in Germany with 200,000 men, was, in spite of his excellent way of economising strength, only able on the 2nd December to collect 80,000 for the decisive struggle at Austerlitz.

And then, again, it will be difficult for the attacker to keep

alive the old enthusiasm. The object seems attained after the first battles, and the advantage won. The necessity of having ever to employ fresh strength and resources in order to keep the successes going, and to retain what has been won, is only difficult to bring home to those who have to make the sacrifices. The defender is in quite a different position. If the enemy presses forward and keeps coming nearer, and the danger becomes more apparent, new sources are opened to him. Extraordinary measures, in order to get recruits, arms, and money, are justified by the situation. From reverses at first, material strength may, —when a proud and strong nation is at its back—accrue to the defence. The Northern States during the great rebellion, and France in the second half of the last war, furnish remarkable instances.

Yet to counter-balance all these advantages, the attack possesses, in a much higher degree than the defence, the capability of setting in motion all the intellectual and moral forces of the army. This capability explains how it happens, that it has all the triumphs on its side. The attacker proceeds from the first in greater consciousness of the object in view. He chooses a certain aim, and his intellectual exertions are thus guided into a certain groove. In like manner, the force of circumstances makes his intellect fertile. Much is gained merely by the fact that the attack is productive of more energy than the defence; for, of two opponents equal in other respects, the more energetic will be the victor.

The defender awaits the thrust in order to parry it. He must observe the enemy, and regulate his action by the action of the other. It is impossible for him to feel the same impulse as the enemy. Therefore, the attacker becomes the party that controls the movements, and the feeling of having to perform such a rôle communicates itself rapidly and certainly to the masses, and effects marvels. The bearing of an army which is pressing forward is wondrously different from that of a retreating or even of an awaiting army. The spirit of enterprise is aroused, and the attack gives it a scope quite different from that of the defence. The former sets far more active factors in motion. We know that the field marshal only lays down general directions. The inferior commanders are

called upon to follow the encouragement given them for spontaneous action, and to make use of it. *Every one of them, even the most inferior, can be a chief actor in the drama, as soon as chance puts him into a decisive place.* A line of defence a mile in length may in general be admirably chosen, and yet have a weak place. He who throws his force upon it, to him belongs the honour of the day. By the sense of this possibility, the aggressive army has always the greater dash. With the number of co-operating forces, the number of chances of success is increased. A point, where the defenders' line has been pierced, acts as a magnet for all the parts of the attacking army not otherwise engaged. Just as waters, where a dam has been broken, rush thither in order to widen the opening, so do here the waves of combatants dash to the spot, where a bold thrust has made the first breach. Success in attack is, moreover, of double importance. A successful defence only proves that the enemy was at the moment not stronger, but the lucky attack shows that the attacker is actually the stronger.

Psychological moments in war have quite as much force as material ones. Let us only conceive of a situation in which danger is apprehended, without our knowing when it will occur, and of the position of an army which, acting on the defensive, awaits the onslaught of the enemy. The defensive lacks the impulsive element. It fetters its forces instead of increasing them; it readily forces upon the soldier the feeling that the army and its commanders are controlled by circumstances, and do not rather control them. And this feeling is not dispelled by energetic action. In every defence the consciousness that the result can only be good, if the whole line can be successfully asserted, is disquieting. It is of no avail to successfully assert oneself on five-sixths of it, if the enemy crushes the sixth part. Nay, it is even quite sufficient for him, only to gain a flank, whence he can begin to break up the whole line. On the 18th August 1870, it was at last only a few battalions, which, after having succeeded in turning the right flank of the enemy, who the whole day until the evening had held his ground with a front a mile in extent, and, in conjunction with the forces storming the front, in destroying a small part of the right wing of the French position, decided the battle. *A disastrous*

difference is this; that the defender is only victorious when he is victorious at all points; while the attacker triumphs if he gains the upper hand in a single spot.

In this truth, which declares against the tactical defensive, so often praised as being advantageous, more than against the strategical, is contained also the reason that the defence of rivers and chains of hills has hardly ever succeeded for any length of time. Neither the Danube nor the Rhine have impeded armies. The isolation of each detachment of troops placed at probable points of passage is dangerous. But still more must be the conviction that each one is lost as soon as one of its neighbours retires too precipitately. A "seasonable retreat" is, in a certain way, praiseworthy, as it weakens the energy of the opponent. The poet, who makes generals after a defeat quarrel together as follows—"Yours fled first," "No one held his ground, the flight was universal," "No, Sir; it began on your wing!"—had a defensive battle with an extended front before his eyes.

In the defence of the Balkans, in the winter of 1878, at the only place where a brave resistance was made, the defender met with a catastrophe. Jomini calls mountains "insurmountable impediments which, however, are always surmounted."

Even though, as Clausewitz asserts, the defence *per se* may be the stronger form, and the weaker side may occasionally avail itself of it with advantage, in order, supported by the terrain and artificial means, to attain at least the more modest result of having repulsed the foe, yet *the greater living force dwells in the attack.* The task of the attacker has certainly been rendered more difficult within the last decade. The greatest exertions will be required to decisively crush the masses of troops which the defender will in future bring into the field, and who await the attacker, possibly in a safe position under the guns of their fortresses, right and left of his path. The commander-in-chief must be more cautious in weighing everything, but more daring than hitherto. Dash, or the attempt to turn the enemy's flank, will not alone suffice in the future. By taking the initiative in movements combined with engagements, in order to deceive the enemy by independent great artillery battles and by a rapid transplantation of troops from one point to another, the battles must be

arranged beforehand and then fought out in the most daring situations. Where hitherto five or six army corps have kept the front engaged, whilst one threw itself upon the flank, and this sufficed; this will, perhaps, in the decisive wars of the future, be reversed. The next war will doubtless bring episodes of the co-operation of all forces in a manner older campaigns have no notion of.

Yet this will alter nothing in the general views respecting attack and defence. For they are dependent upon internal, and not external motives; upon reasons which spring from the secret of human nature. *All impediments in his way will awake in the assailant new ideas and new vigour, will sharpen his mind, and enhance his love of enterprise; and will thus, although they demand much of him, give him back more in return. Happy the belligerent who is by fate destined to play the part of assailant.*

The object of all war, the crushing of the enemy's forces, can, after all, only be achieved by attack. The partisans of the defensive also always maintain that it can only be temporarily maintained, that at last the defender must also begin to attack, and answer the thrust he has parried by a thrust in return, and that he must ever have this before his eyes. That is to say, in other words, that the defender will also be attacker, and only awaits the time when he will be able to take the offensive with prospect of success. This is an acknowledgment that defence is not entitled to be considered an independent form of waging war; it is, after all, only an episode. No one asserts that a man who has been attacked and has warded off the blows which were intended for him has been engaging in a fight. In like manner, it cannot be correctly said of the defender that he is waging war; he rather suffers one. To wage war is identical with attacking.

We proceed to explain, after this general consideration of the subject, the conditions for a successful issue of the attack.

Certain it is that attack demands the greatest expenditure, whether of physical or moral force, or of intelligence. Thus, where a numerical superiority of a nearly like quality does not exist, it demands an army of an internal excellence, which can alone withstand a high degree of strain. Inefficient armies, be they ever so great in numbers, cannot be entrusted with certain

tasks. Among them, for instance, the taking of strongly defended fortresses, which do not allow of being avoided or being taken by stratagem. Such places can only be stormed by very brave and adroit troops, such as have been properly trained for battle. When these are wanting, it is, ordinarily, of little avail to renew the attack with fresh troops, seeing that each single shock is of little weight, and none will break through the resistance. A vigorous assault will always effect more than ten feeble ones, even though they follow immediately one upon another. The assaults of the French upon the position of the Lisaine, on the 15th, 16th, and 17th January 1871 afford numerous proofs of this.

Since, again, in an attack in these days, very much depends upon the subordinate commanders, it follows that only an army that possesses a thoroughly experienced, intelligent, and brave corps of subaltern officers, all trained for independent action, can be successful in the offensive. The thirst for deeds must animate all its limbs. As the absolute power of the attack is from the first moment in constant decrease, it follows that a very well organised system of reinforcements is one of the necessary conditions of the offensive. Reinforcements for the armies must ever be in readiness, and good reinforcements, all capable of fulfilling the ever more arduous tasks of the attack. Accordingly, armies that have enjoyed careful training in time of peace, as well as a strict national military system, are conditions precedent to the *rôle* of assailant. Only the first-named can create the requisite intense energy, and the second give sufficient material for maintaining this energy.

Rapidity and continuity of action are the elements of the attack. No halt may be dreamt of before the object has been attained. Interruption, on this account, is dangerous; because it follows upon unusual exertion, and always entails relaxation. It is difficult, during the operations, to renew an attack which has once come to a standstill; and, in case reinforcements do not arrive, in battle almost impossible. So that, on the one side, more flows in than is, on the other, lost by the stoppage of the strain. Hence only the certain prospect of considerable reinforcements will justify a voluntary halt in the midst of the onslaught. In the

face of unassailable positions the most daring attempts at turning and threatening the enemy are better than waiting for a favourable opportunity. Otherwise the attacker will become the attacked; for the courage of the defender must necessarily wax greater, as soon as he perceives that the assailant does not dare to attack him. Further, it is the interest of the attacker not to bring the battle to an issue in the place where the defender has prepared for it. It must ever be his aim to transfer it to other fields—that is, by his own movability to force the defender into motion, in which the offensive, from the essence of its whole nature, has the upper hand.

A rapid attack generally entails a less expenditure of strength, although the latter may for a few short periods be more intense than ordinarily. Rapidity especially assists the tactical offensive. Frederick the Great thus teaches in his *General Principles of War*: "Therefore, the livelier the attacks are, the fewer people do they cost."

The gradual flagging in the energy of the attack demands, moreover, the greatest economy with the combatant forces. Hence the attack must, at the same time, ever have only a single object in view, and must, for the while, leave the rest out of count. All physical and moral energy belongs to the attainment of that one single object. Whilst the tactical offensive is being carried out, it is necessary to be perfectly clear as to this: that everything must primarily be staked upon gaining the undisputed mastery at the given point of assault, so that the enemy will no longer be able so far to recover himself as to make good his ill-fortune. That done, only then must other successful work be looked for. In the case of the strategical offensive, it is necessary to employ unswervingly the whole force upon the destruction of those masses of troops, whose defeat will, it is believed, ensure, at all events for the time, the mastery of the situation.

But the choice of the object is in the strategical attack regarded also in quite another connection. It will be necessary to ask ourselves whether it is possible to finish the whole business of the war, upon which we are engaged, at a single stroke, or whether it is not better to divide it up, and to contemplate several objects successively, and thus to a certain extent to

undertake not merely one, but several strategical attacks; all which, however, can very well tend towards one single grand and final object. The extension of the single strategical attack, must be carefully calculated according to the means at disposal. A wise limitation is here the first virtue of a commander-in-chief. This virtue was lacking in Napoleon in the year 1812, and this deficiency led to his defeat. The continuation of the offensive from Smolensk to Moscow, in the second half of August 1812, was a most hazardous enterprise. This last decisive part of his operations ought to have been the object of a new special campaign in the winter of 1813, and the winter should have been given up to making preparations for it. Napoleon over-estimated the strength of his genius when he endeavoured to finish the whole business in one single campaign without pause. On the other hand, Alexander, in his conquest of Asia, proved himself a master of limitation, in determining beforehand the single parts of his military operations, whilst, in general, taking within range the furthest objects which it were possible to attain. In the systematic conquest of the coast of Asia Minor, and in the occupation of Egypt, before beginning his march into the interior, he showed his genius in its fullest development. He covered his rear, reinforced his army, gained possession of great maritime forces, and then turned his face towards the unknown East. Thus did he save himself from Xenophon's fate, and, on this very account, did the cunning and prudent Romans call him the sole great man among all strangers. The same moderate limitation was displayed by the German military authorities when, in 1870–71, during the siege of Paris, they stopped the extension of the offensive in the French provinces, in order, before doing anything else, to subdue the capital, and to make perfectly sure of this success. "The general circumstances of the case render it necessary only to continue the pursuit of the enemy after a victory as far as is requisite for the purpose of crushing his troops generally, and making it impossible for them to reconcentrate for a long time to come. We cannot pursue him into his last stronghold, such as Lille, Havre, and Bourges; we cannot wish to hold for any length of time distant provinces, such as Normandy, Brittany, or Vendée; but we must determine even to evacuate places that we have taken, such as

Dieppe, and eventually Tours also, in order to be able to concentrate our main forces upon a few principal positions." Thus at that time did the directions from head-quarters run. Only after Paris had been subdued, the besieging army free to act, and it had become possible to reinforce the other armies, only then should the complete subjugation of the provinces, if it was still necessary, be taken in hand. Had it not been for this reserve, which was rendered imperative by the circumstances, perhaps a splitting up of the combative forces, or, it may be, after brilliant successes, a reverse would have ensued, or possibly the final success have been rendered doubtful. If, then, the offensive shall unceasingly follow its aim, it must not seek it in an unattainable distance, but must always only on each occasion proceed as far as the existing forces permit. *Voluntary limitation is a protection against an enforced retreat.*

The assailant must not find his security in flank and rear, in the fact that he covers them by detaching a considerable part of his forces, but rather in that he carries out his assaults in the front with the greatest possible weight. Every detachment of troops for subordinate purposes is a disadvantage.

The most careful keeping open of lines of communication between the army and the resources at home will be necessary, in order that reinforcements of all kinds, despatched from the latter, may reach the army confronting the enemy without delay. Napoleon was, in this respect, a pattern of prudence. He used much adroitness and trouble in maintaining the lines of communication with his base of operations in the rear, for he knew full well that an army acting on the offensive is in need of ceaseless fresh drafts of strength. Even in 1812 he neglected nothing in this respect. Only his great precautions did not suffice for surmounting difficulties which were in fact insurmountable. The prouder, the more confident, and the more self-conscious the attack is, the sooner has it, in case the necessary prudence goes hand in hand with it, prospect of success. Lucky assailants have ever done half their work by being imposing. Sometimes, as in the case of Junot's march to Lisbon in 1807, and Diebitsch's march across the Balkans in 1829, the effect of the offensive consists alone in its moral impression. But then, as a

rule, there aids the successful termination, the faintheartedness of the enemy or a clever policy, which forthwith takes advantage of the effect that has been attained.

The defence makes far less demands upon the quality of the army. Especially is this the case upon the tactical ground. Here the soldier is more of a machine than in the attack. His place is assigned to him, and his action prescribed. An energetic fire and perseverance are the two demands required, and of these the young inexperienced warrior is capable. Only to a small degree are independence, impetuousness, and quicksightedness necessary. It is at least sufficient, if a comparatively small body of the commanders possess these qualities. Considerable demands are certainly made upon discipline. But this latter can be more easily maintained in the case of the defence than in that of the attack.

Hence armies less efficient and masses which have been rapidly collected for the needs of war, both which would not be capable of an energetic offensive, still achieve something in the defensive. The difference between both *rôles* is so considerable that the same troop can often not be again recognised when it drops the one to play the other.

The elements of attack are rapidity and force; those of defence, perseverance, and tenacity.

Whilst, accordingly, the former seeks the decisive issue in great and rapid blows, the latter is justified in awaiting the successful issue from time and from the repeated renewal of resistance. Every defence must from the first bear this in mind. Several lines behind each other, which it on each occasion holds with all the force at its command, lend it much strength. A great extension of the theatre of war is of advantage to it, as was apparent in the campaign of 1812. Whilst, moreover, it is more able to emancipate itself from the vigorous military system and the peace-school, than can the offensive, yet it needs a good exchequer and good national credit to be able always to have at its command the forces necessary for the increasing needs such as are ever repeating themselves in the course of the war. And since, again, it seldom happens that a country is capable alone of furnishing, at the given time, everything of which its armies stand in need, it follows that a State which intends to be victorious in its defence

must have at its back either the open frontiers of friendly powers, or a sea which it commands. A country not in this position, can at best only resist as long as its own industry is capable of furnishing the needful for its troops; and even here we must be mindful that its pecuniary resources are at the same time more straitened.

Whilst the assailant can only through the position of its fortresses secure places in his rear for the organisation of his lines of communication, and for the protection of the magazines and depôts, the defender must derive a much greater advantage from such, make use of them as supports for his wings, and turn them to such account that they can, in conjunction with the army in the field, either defeat the enemy or weaken him, before he comes up to them.

The defender must further be aware of the attractive force that his main army exercises upon the attacker. This army holds not only the country that lies behind it, but, as long as it is not defeated, all the surrounding country also. Detachments for the purpose of forming a cover can also, in great measure, be spared on the side of the defence, as soon as the operations between both armies are in full swing.

We have, moreover, seen that the offensive seeks movement. Therefore the defender can only rarely reckon upon being attacked where he first takes up his position and prepares for battle. Very favourable geographical conditions can alone bring about this end. The defender must think of his own movements and be prepared to transplant his troops rapidly from one point to another. He must never be bound to one single line of communication in his rear, but must be able readily to change it. But as he, as a rule, operates in his own country, and as, in these days, in Europe there is everywhere a comparatively thick network of railways, that will not be a difficult task.

The battle, too, must not be only prepared in a single place, but there must be in other places also main points of support, where the attacker may possibly appear, and where the defender must be quickly ready to resist him. Very great regard has been paid to this point in France. The North-East of the country may be regarded as being one well-prepared battle-field.

When active armies make their appearance within it, from the beginning of the war onwards, field entrenchments will be seen to arise in a single night between the already existing fortifications.

As the assailant has by his movements taken the initiative, the defender is naturally exposed to the danger of arriving at the critical point later than the former. It will thus be necessary for him to impede the movements of the enemy. This can be done by counter-attacks, which catch him in the midst of carrying out his intentions. But such operations are always difficult. They demand very exact information of the enemy, and resolute and collected commanders, who do not allow themselves to be induced by successes to go too far at first. The counter-attacks, which naturally have a surprising effect, generally begin favourably; but if the attacker does not lose his head, he will soon penetrate the intention, change his schemes, bring up his forces, and at once proceed to a decisive struggle. A counter-thrust that overreaches itself may accordingly easily bring about the battle that the attacker has sought, and which the defender has neither intended nor for which he is prepared. Then the party acting on the defensive is half lost. Less dangerous is the attempt to impede the movements of the attacker by taking up threatening positions on his flank. Whilst the defender marches with the main body of his defences to the spot where he expects the issue of the battle to be decided, he can often without risk push certain detachments into such flank-positions, and let them follow later, before they are seriously attacked.

Thus it follows that the defender can never really allow his activity, as the representatives of the defensive-theory urge, to consist alone in passively warding off attack, but he must, instead thereof, bring into it an element that strives after movement and battle. This element will at last be quite triumphant, when the assailant has been repulsed, and must then be attacked and defeated. Then the longed-for moment for letting the mask of the defensive entirely drop, and for going over to the offensive, has arrived.

Some main features of the nature and course of attack and defence have been hitherto explained; it now remains to consider

a union of both, which appears to many professional men as the highest achievement of art.

As, for instance, the advantages of the offensive are ordinarily seen in moving, but those of the defensive in fighting, it has been considered to be best to act strategically on the offensive and tactically on the defensive. It is accordingly necessary to advance against the enemy into his territory, gain positions which he must not allow to be torn from him, and force him, by this means, to fight, whilst all the while remaining on the defensive and leaving him to play the more difficult and damaging part of assailant. *Offensive movements* and *defensive battles*, a theory well-conceived, but very difficult to realise, and scarcely ever to be met with in military history. From what we have formerly said upon the subject of the advance to the front, it follows that, in these days, it will not be possible, after concentrating the armies, to make any considerable advance forwards, without meeting with resistance on the part of the enemy. Hence, with offensive movements, offensive engagements must also necessarily be combined. And when the decisive points have been reached, it will not be possible for it to be otherwise. If, then, the army acting on the offensive should then wish to go over to the defensive, and allow itself to be attacked, it would restore again to the enemy the strategical liberty of which it had only just robbed him, and thus sacrifice its own advantage. The sudden transition from offensive to defensive might also not be without prejudicial influence upon the troops. But before all, we must remember that the commander-in-chief is in no wise master of the form and time of the decision to such an extent that he can determine it at will. In the same way as engagements, so will also the battle develop itself immediately from the movements. It is thus quite natural, that the armies on the advance, attack whenever they find the enemy in front of them.

The engagement, moreover, exercises its attractive force upon all troops; it is, generally speaking, no longer possible to prescribe a defensive attitude. The *strategical* offensive involves accordingly, in a perfectly natural manner, the *tactical* also. The former is inconceivable without the latter. It is the tactical attack that first lends energy to the strategical, completes it and furnishes it with

results. The strategical sows the seed, the tactical reaps the harvest. The weakliest opponent, too, who is strategically driven into a corner, will appeal to the fortune of arms upon the field, before declaring himself vanquished. If the attacker were to stop here, in order in this last crisis to enjoy the advantages of the defence, it would be very frequently tantamount to renouncing his claim to decide the struggle; for the enemy, who, up to then, has been the repelling and expectant party, will also remain so to the last hour; and all the more readily, too, seeing that his prospects are, as a rule, not improved by it.

Situations may occur when despair and constraint, which he cannot escape, drive the defender to take the tactical offensive, and when the enemy, who has till then acted on the offensive, is compelled to adopt the defensive. This will be the case, for instance, when the defender has been driven back by the attacker upon a great stronghold, and necessity compels him to free himself. The attacker, who is investing him, becomes at this moment changed even into a defender, who is able to prepare his defence. This is what happened to the Germans before Metz and Paris. The saving of an object of great political importance may also compel the strategical defence to change *rôles*, and thus give the offensive the opportunity for a tactical defensive. When, in the winter of 1870–71, the fall of the French capital, and with it the cessation of resistance throughout the whole of France was impending, the Germans had the opportunity of fighting against the enemy's troops which came up to raise the siege. But in this case it was clearly seen to what extent an army that has for a long time advanced in successful attack is controlled by offensive feelings. Even under these circumstances, our armies fought their battles almost everywhere as assailants. Only where necessity rendered it imperative did they confine themselves to the defensive. *Strategical and tactical offensive belong inseparably together.*

It is similar with the strategical and tactical defensive. He who has acted in his movements on the defensive, will, in most cases, observe a repelling attitude upon the battle-field. The attacker presses him; he relinquishes advancing operations in favour of action. And there it is exceedingly difficult for the defender to find the right moment for shaking off the yoke im-

posed upon him, in order, in turn, to play hammer, and not anvil. Here is seen what is imported when one party has learnt to consider itself domineered over by another. Even with superior numbers on its side, it will often remain on the defensive, and be glad if it can remain so to the end with any degree of comfort. The French at Vionville on the 16th August 1870 supply us with an instance of this. For sixteen days they had been on the strategical defensive, had been attacked on the 6th and 14th of August, and felt themselves, accordingly, in the new battle tied to their position, in spite of the fact that they had overwhelming numbers on their side. An army capable of an abrupt change from the defensive to the offensive, will never allow itself to be forced into the defensive, but from the first will play the part of assailant. Now it is contended by some, that this abrupt change should take place on the battle-field where, after adhering to the programme of a well-ordered defensive, and the enemy has been successfully repulsed, a counter-thrust has at last been made. Moreau at Hohenlinden, Bülow at Dennewitz, Napoleon at Dresden and Austerlitz, have all proved that a transition from defence to attack upon the battle-field is possible.* Yet these instances disappear before the number of those of an opposite character.

Where the original defence is due to constraining necessity, the army will usually remain on the defensive. If the enemy's attack has been repulsed, only in rare cases will all doubts have been dispelled as to whether he will not again return with renewed strength and energy, or whether his repulse was final and complete. Great precautions will almost always have to be taken so as not, by a too rapid advance, to risk a success which has been already achieved. The defender will be content to hold his position, so as not to lose what is certainly his. He will readily abandon all idea of adding to his successes, because he has, as it is, a victory in his hands. And then it is never at the moment felt to be quite certain that the attacker has relaxed his efforts. Only by degrees does it become perceptible, often not until the next morning, when a field of battle which has been successfully asserted is found, to the general

* At Dennewitz the defender, however, had only to see that his forces were all collected, in order to enable him to adopt the offensive; at Austerlitz the defensive was really only a pretence, the attack had from the first been determined upon.

astonishment, to be abandoned. In these days, great distances do much to prevent the turning points in the engagements from being observed.* Thus the offensive will, as a rule, only follow the defensive on the battle-field when considerable reinforcements are brought up in the front, on the wings, or, as was the case at Waterloo and Königgrätz, upon the enemy's flank.

Before the strategical defensive gives way to the offensive, a pause takes place, showing that the original attacker is crippled and cannot go on, that the defender has lost the feeling of being domineered over, is strengthened in his attitude and his forces, and that the change of *rôles* has gradually been prepared to this end long before it happens and comes unexpectedly upon the distant observer. Napoleon's *Grande Armée* went to pieces on the advance into Russia, but the destruction was only visible when the wreck of it began the retreat and the Russians the pursuit.

8.—*Detaching, Massing, and Manœuvring.*

"Every close concentration of great masses is an evil; it is justified and imperative when it leads immediately to battle. It is dangerous, when in the presence of the enemy, to break it up again; and impossible to remain in it for any length of time.

"The difficult task of all good leadership consists in providing for the detached state of the masses, and, at the same time, for the possibility of assembling them at the right moment.

"For this, no general rules can be laid down; the problem will be each time different."

We place the leading principle to be discussed in this chapter at its head, and do not attempt to expound it; for it must be taken from experience. As soon as it be denied that the crowding together of considerable masses is an evil, much that can be said about detaching and massing loses its impor-

* How difficult it is, in the face of an energetic enemy on the offensive, for the defender, even with superiority of numbers on his side, to find the right moment for proceeding to counter-offensive action, was shown by the Silesian army at Laon. In spite of the successful onslaught of York and Kleist upon the right wing of the French at Athies on the night of the 9th and 10th March 1814, a general counter-offensive which would have annihilated Napoleon was not resorted to on the 10th.

tance. But he who has been engaged in war knows how oppressive the close packing of troops is felt to be, and how everyone breathes again as soon as the masses are separated, and how each and every troop longs to be released from the bond, so as to be able to move freely. We do not take into account fatalities such as contagious diseases, which, of course, spread more rapidly among united than among separated hosts, but only refer to ordinary evils, such as the want of space for quarters, the bivouacking in the open, the rapid consumption of all the resources of the country, want of water,* the failure of commissariat, the impossibility of carrying off sick and wounded upon the crowded roads, the badness of the roads in bad weather, the collisions between the columns on march, shifting ever hither and thither, the picture of desolation which it spreads when hundreds of thousands, like a swarm of locusts, pass in thick crowds over a district, &c. The atmosphere is full of dust, smoke, and smells of burning. The leaders find it, it may be, bearable. But of others who follow two, three, or four days consecutively, the hindmost march through a wilderness. This is certainly sufficient to justify us in describing the massing of troops as only an emergency.

"First of all, every army must live; it must eat, drink, rest, and move." That is only possible when scattered. In a wide space, more towns and more wealth is at hand, more railways and roads to and from it, than is the case in a narrow space. Separation must accordingly be maintained as long as is possible. Concentration, with its train of discomforts, must be reckoned from the time when that space can no longer be allowed the army corps which in our consideration of the marches we held to be necessary for tolerable quarters. Only when the enemy is close at hand must the columns be concentrated to meet him. The essential thing here is not to allow oneself to be deceived, and not to miscalculate. The solution of the problem depends only upon ordinary quantities, viz. time, space, depth of march, and the marching capabilities of the troops. Simple as it looks, it is often rendered infinitely harder by the fact that moral factors, rapid

* This was very sensibly felt in the neighbourhood of Metz in 1870.

decision, perspicuity, firmness of conviction without obstinacy, energy in commanding and in acting, must all co-operate.

If during the movement a battle is seen to be inevitable, it will be necessary to bring up the long marching columns to the front, which must halt for this purpose. In such a case, an opening out of troops is spoken of. But the divisions that are marching up to the front upon other parallel roads are also brought up. This is called the concentration of the armies. Before great decisive engagements with the enemy, a gradual concentration will be effected during the few days preceding the action. The opening out can be effected on the last day, if on every main road only one army is marching; on the two or three last days, if two or three corps are marching on the same road one behind another.

An army corps on the march, being three miles (German) in length, in round numbers, without waggons,* requires, as is known, five to six hours for opening out. If its train is to follow it, double the time is requisite. The front must not, however, move on. If it is obliged to do so, it increases the exertions of the hindmost troops beyond all measure. It frequently happens, that after a certain distance has been covered, the enemy is fallen in with, and it becomes necessary to open out. If the distance already covered was two miles, the last battalion of the army corps has marched five miles when it arrives upon the field of battle. An enemy, who is in the early morning more than three miles distant, and who does not also advance, cannot well be attacked the same day. It must then suffice to march with the front up to his position; the next day, the opening out and the attack takes place. The attack may, at all events, be begun when only a part of the troops have opened out and developed, leaving the remaining part to come up during the action. But thereby a united employment of the whole mass is abandoned, and this is a disadvantage. Reversely, this situation allows of the enemy being eluded, when more than three miles intervene between him and the troops on march. If, on the preceding night, his van was two miles distant, it would only be necessary to retire two miles, in order to avoid any serious engagement the following day. The foremost troops of the army

* In full strength exactly twenty-four kilomètres.

corps of the enemy would have four, and the hindmost even seven, miles to march before reaching our position. But soldiers who have marched seven miles are no longer to be feared; for they have exhausted their strength.

Besides this, the march would last so long that the following night would intervene, unless the attacker started before daybreak, and thus imposed a double exertion upon himself. In winter, when the roads are bad, the snow deep, and when darkness sets in early, a far less distance is sufficient to render it impossible for the enemy to undertake a vigorous attack.

In order that this calculation may prove to be correct in practice, it is, however, necessary that one shall be able to move readily and easily back from the place in which one has stood in the morning. It is either necessary to have a number of roads at disposal, or that one is able to retire with the troops in broad formation. Their strength is also a great essential. If we have an army corps, which has been opened out, and it is now required to move it backwards upon a road, it needs, as it did to open out, for this purpose five to six hours.* If the enemy was a day's march distant, and he begins his advance simultaneously, the heads of his advancing columns fall in with our last detachment at the very moment it leaves its original position. And it will not escape without an engagement. Again, if the baggage were behind our army corps, and if it must first of all be set in motion upon the road of retreat, the whole army corps is caught; for, as the baggage is a day's march long, the army corps is already waiting on the spot when the enemy arrives.

But, of course, all these rules must not be taken to be arithmetically correct. It is seldom that army corps are quite up to their full strength; as a rule, some detachments have been despatched elsewhere. All the baggage is never together at once; part of it is always at a distance. And only in exceptional cases is an army corps tied exclusively to a single road. In this situation, a long defile, an embankment, or a pass must be conceived of, which it is necessary to use. However, these instances will make it plain to what we must pay attention, in judging of movements backward and

* Colonel Blume reckoned five hours for a march of three miles, as well as for the filing of an army corps into a single marching column.

forward. They teach us that army corps cannot be moved about like men on a draught-board, but that, in addition to the time and space which each part must occupy in order to go from one place to another, the time which the whole requires in order either to open out before the battle, or in order to file into a column on march, must be taken into consideration. It is also conceivable that a certain attractive force makes itself felt between the larger hostile masses when they approach each other, as between a magnet and iron. As one army corps is able to disturb the retreat of another, which stands opposed to it at a distance of a day's march or less, and as the latter must also prepare for defence, it follows, as a general rule, that large masses of hostile troops, which have approached each other within such a distance, do not generally separate without an action. In such a case an engagement must from the first be anticipated. Only if both armies have in full marching depth echeloned along the road, so that on the following morning all troops of the retiring side can simultaneously form, the latter will not be caught up, and thus an engagement avoided.

By reason of the considerable marching depth of an army corps, it is well known that two corps marching one behind another upon the same road cannot possibly be both brought up to the front on a single day. If an action takes place at the head of the first army corps, the hindmost troops of the second corps must make at least a good two days' march* before arriving upon the battle-field. It is much easier to bring up two corps marching upon parallel roads, even though these roads lie even three miles apart; for a simple calculation shows us that the last soldier of both army corps must at most cover $4\frac{1}{3}$ miles in order to come into the action which has commenced at the head of one of the corps. Further, even if three army corps advance upon three parallel roads, each of which is three miles distant from the next, they would still be able to concentrate at the head of the middle road in a single day. Only if the concentration is to take place on the side of one of the wing-corps two days would be necessary. If all three corps were made to follow each other upon one of those roads, they

* We are taking here the army corps without all its baggage train, for the greater part of it can be temporarily dispensed with

would require three days in order to open out on the front.* General Benedek would have even required four such, for his great column in 1866. Most easily, of course, can several corps be concentrated at a given spot, when they are despatched upon roads which all culminate there. An army, which stands in the morning extended in a single long line of six miles in length, can concentrate upon a battle-field situate three miles ahead of the centre, provided only the corps are all in close village quarters or bivouacs, and each has a separate road for itself, leading to the battle-field. The soldier furthest distant would, as a simple geometrical calculation demonstrates, have only between four and five miles to march; an achievement which can be demanded of him when the cannon call. The concentration is, of course, simplified, if the army in early morning did not stand upon a straight line, but upon a circle round the battle-field. The evening before Königgratz presents us with a clear picture of this.

On the 30th June 1866, in the evening, the two Prussian armies which had separately advanced into Bohemia stood at Gitschin and, on the Upper Elbe, from Arnau away to Gradlitz; only a good day's march from each other. As the Austrians on the evening of the same day began the retreat upon Königgrätz, the concentration of our armies on one spot would have been possible. But this course was voluntarily abandoned, and the armies were only drawn a little closer together, so that on the 2nd July they remained drawn up upon a curve of five German miles extending from Simidar through Miletin, Königinhof, to Gradlitz, round the enemy who was drawn up in close formation behind the Bistritz, north-westerly of Königgrätz. That it was possible from this position to rendezvous at the right time on the battle-field of Königgratz, was brilliantly shown on the 3rd July. Scharnhorst's doctrine, which sounded in his day infidel enough, that we should never be concentrated in position, but always fight concentrated, was in this case rightly perceived and executed in a masterly manner. Had all the

* The difficulties in employing the troops, arising from the great depth of the marching line needs all the more attention and thorough consideration in Kriegspiel, exercises, &c. as these frictions hardly ever occur in the peace-manœuvres, in which not only the baggage but also the waggons are wanting, and the divisions are even not half as strong as in war time.

divisions of the Prussian army been, perhaps, concentrated at Miletin and Horsitz, far fewer roads would from this narrow space have led against the enemy. We should have been compelled to let the corps follow one another on the morning of the 3rd July, and the advantage of the more compact concentration, viz. the employment of all forces together would have been again lost. One part would never have reached the battle-field, on account of the too great depth of the few marching columns. *Great masses of troops can more easily be combined by closing up than by opening out; but this is most easily effected by setting them in motion, with the single division in adequate breadth, upon roads which converge upon the goal to be reached.*

This principle is treated of under *manœuvring*, but first of all something must be said upon the meaning attached to the word *manœuvre*. The times are gone by when Massenbach devised forcing the enemy to retreat by the power of manœuvre. We also, with Clausewitz, do not think much of those generals who would be victorious without shedding blood. What vigorous enemy would allow himself to be intimidated by threats. A mere manœuvring by the enemy without striking a blow, would make upon us the same impression as the mimicry of war stage heroes indulge in. In spite of their raging gestures, we tremble for no one's life, for we know that their swords are blunt. Massenbach, in a toast to Prince Henry, the brother of the Great Frederic, thought to raise an imperishable monument to his hero in the following words: "By bold marches he flattered fortune; more fortunate than Cæsar at Dyrrhachium, greater than Condé at Rocroi, like the immortal Berwick, he gained the victory without a battle." To our ears this phrase sounds very dubious praise. The victories that are gained without a battle are only of value so long as a weak enemy conducts himself in a timid way. We understand by manœuvres, accordingly, not "scientific" and even not merely "bold" marches, but on each occasion compound movements, which are always directed towards throwing superior masses on one single spot upon the enemy in order to crush him. Every manœuvre must lead to an advantageous battle. Thus the word loses its harmless meaning.

The fact that troops can be more easily concentrated than opened out, leads us first of all to a consideration of *outflanking*. The outflanking operations owe the importance they have attained in modern warfare, to the circumstance that it was always the side which was from the first superior in number that resorted to them. The overlapping of the enemy's line upon the wings by superior forces led to this, or it might be a greater expansion, which that belligerent allowed himself, in whom a feeling of superior security and strength had arisen, owing to the excellence of both commanders and troops. The weaker will keep his masses closer together, and will avoid the separation of them rendered necessary by an outflanking position.

The greatest advantage of all outflanking movements is that, if they are well executed, they at last lead to the whole army of the enemy, or a part of it, being caught between two fires. In Scharnhorst we find the rule: "Troops attacked upon more than one side may be regarded as defeated." It is not a rule universally true, yet it is founded upon the fact that he who stands between several enemies, approaching him from different directions, is compelled to an eccentric activity which splits the forces, and thus weakens; whilst the former work concentrically and gain in strength.

The further advantages of outflanking operations with separate and independent divisions, lie in their expansion in the given space. First of all, the forces can more readily be got ready. From the first they can be massed in separate groups. To two or three places more railways run than to one. And then the movement is expedited through the possibility of using a greater number of roads. For food-supplies and for quarters, more villages and more resources of the country are available. The concentration, also, upon the goal towards which the advance is being directed is more quickly effected. The menace to the rear-communications of the enemy, which such outflanking and overlapping operations cause, may be of good effect. The prospect, that in case of a disaster he may be deprived of his lines of retreat or his means of subsistence at one and the same time, must tend to disquiet him.

When it is impossible to outflank both wings of the enemy, it is the rule to attack the most sensitive one. The general circum-

stances of the case will show whether this is to be the right or the left wing. Only then can success be counted upon. Under certain circumstances, a simple encircling will be sufficient, and will cause the enemy to abandon his plans and leave his positions. But simple menacing by merely taking that direction will not be of sufficient effect, unless a valuable object is at the same time seriously endangered. The encircling of the Prussian army massed on the Saale, in October 1806, made a crushing impression, because the great depôt of Naumburg, which lay in the rear of the army, was thus unexpectedly lost. The news penetrated everywhere, the meaning of the loss was apparent to everyone, and thus the disastrous opinion was spread that the army was defeated before the decisive battle had begun.

Outflanking upon both wings will, when carried out with force, never miss its effect. It threatens the enemy with complete isolation and imprisonment. In the background, is seen the hideous spectre of an encircling-battle and surrender. But, as a rule, the positive danger of such a situation is over-estimated ; yet imaginary evils often become, in war, owing to their moral influence and effect, real ones.

The principal objection to all outflanking and enveloping movements is that which is true of all operations undertaken by divided and separate corps for the attainment of single objects, namely, that the enemy can avail himself of the temporary separation to defeat the separate divisions before they unite.

This danger certainly exists, but it is moderated to a great extent by attendant circumstances. The first of such circumstances is the clearness of the whole movement. The object is brought into the centre, and is visible to all. All the commanders of the separate divisions of the army know that they can only contribute to the success of the whole enterprise by an unswerving advance. By this means, a uniform plan of action is guaranteed, and a mistake is not well possible. When Prince Frederic Charles took the outflanking offensive against the army of General Chanzy, at Le Mans, on the 6th January 1871, he only assigned to each corps the road upon which it should advance. Soon the enemy approached, and the separate columns during the separation had each to fight battles, without being able directly to support one

another. The orders for an unswerving advance were, however, issued on the 8th January: "For all the attacking movements which have been ordered, the main point to observe is this: that the quicker and the more decisively the single columns gain ground towards Le Mans, in all the greater embarrassment must the isolated divisions of the enemy now lying between our several lines of march come." Thus ran the order. It is in the nature of concentric outflanking operations, that every column by its own progress enhances that of the rest. The nearer they approach together, the more effective will, of course, the mutual support rendered be. This latter becomes more and more like a joint and common operation upon the same battle-field.

That everything turn out well, an adroit choice of the object to be attained is indispensable. It must tally with the network of roads, so that all the corps shall naturally be led to rendezvous upon the main converging roads. If the operations are conducted in the direction of and upon a large town, as was the case at Le Mans, this will, generally speaking, be the case; for populous places form centres upon which great lines of communication converge. A simple plan, suitable to the circumstances of the case, is an earnest that the subordinate commanders will act to the purpose, even when orders from the supreme authorities do not reach them. Where the communication between the general in command and the various columns of the army is impeded, this fact is significant. The rendezvous must not be arranged too far into the country occupied by the enemy, otherwise the risk is run of meeting the enemy with his combined forces before reaching the goal.

When, on the 22nd July 1866, the Prussian military authorities ordered the invasion of Bohemia, they fixed the vicinity of Gitschin for the rendezvous of the three armies, stationed at Dresden, Görlitz, and Neisse respectively, and occupying between them forty miles (German). Field-Marshal Benedek was advancing with his whole army in a compact body from Moravia to the Upper Elbe, in order to throw himself between those single and divided masses, so as to defeat them in detail. Yet all the same, the boldly planned union was effected. But this movement was sharply criticised. A writer of Jomini's school said: "The opening of the campaign displays, on the part of the Prussians, a reckless

disregard of all the principles of warfare." Another vehemently asserts: "Prussia marched, without there being any occasion for so doing, at the brink of a precipice; and a single blow delivered by the enemy would have sufficed to hurl it into the abyss. This blow was never given. It was a mere marvel that Prussia was saved from defeat, which, under the circumstances, would have entailed a terrible catastrophe."

In quite recent times, similar opinions have been expressed in French military literature. But if the circumstances of the case be more narrowly scrutinised, the impression of a reckless and idle hazard, which the Prussian military movements may have raised in the minds of distant spectators, completely disappears. The Austrians, before they advanced, were posted between the towns Weisskirchen, Wildenschwert, Gross-Meseritsch and Lundenburg, in Moravia. Nine or ten days are required for deploying within this space. In case, which was actually the fact, the place of rendezvous were removed to the Upper Elbe, this space of time would be increased to thirteen days. Starting on the 18th June, the whole Austrian army could not arrive upon the Upper Elbe before the 30th. From Dresden and Neisse to Gitschin the Prussians would have, at most, eight marches to perform. They could accordingly complete their rendezvous on the 30th. Until this date, only detached Austrian corps could possibly confront them, and not the whole Austrian army. But the Prussian armies, 125,000 and 140,000 strong respectively, though as yet detached, were each superior to parts of the Austrian army. "This was therefore no random hazard." The guarantee for the successful issue lay in the proper choice of the object, which could be reached before the main body of the enemy was on the spot. "True that the position of the Austrian army was not then clearly perceived, as it now is; it was supposed—but erroneously—that a great part of it would be met with in Northern Bohemia, and great difficulties in terrain might be encountered; but *he who will always in war be perfectly safe, will hardly ever attain his object.*" *

The period of danger is, as a rule, confined to a few days. Such as are those on which the detached columns are not *far* enough

* *Militair Wochen Blatt*, 1867, No. 18.

distant to be able, without prejudice to the whole, to elude an enemy superior in numbers, but at the same time not sufficiently *near* for mutual support.

If one of them be defeated, it does not, on that account, vanish from the scene of action. Our modern weapons of precision and mode of fighting render rapid and complete defeats, such as Olsuwief's, on the 10th February 1814, when Napoleon threw himself between the single divisions of the Silesian army, a rarity. The column that has met with a disaster can again follow the victorious enemy, when he desists from attacking it and prepares to attack another. Thus they can always facilitate the advance of the others.

Extensive operations certainly pre-suppose uniformly good generalship in the case of all the detached divisions of the army. The sole supreme command is confined to laying down the object to be attained and the general principles to be pursued. In all other details, the judgment and energy of the several generals in command is relied on. Great independence is essential to them. It is not, therefore, every army which is capable of carrying to a successful issue bold outflanking and concentric operations.

The most effectual counter check, on the part of the defender to these outflanking operations, is, under all circumstances, an action. This summons the combatants on both sides. The manœuvres cease, the concentration of forces upon the battle-field takes place, and, if the *tactical encircling* be successfully eluded, the *strategical* has, as a rule, come to an end. An apt instance of this is afforded by the operations shortly before and after the battle of Jena and Auerstädt. Napoleon had completely surrounded the Prussians and Saxons, who were posted behind the Saale, near Jena and Weimar. On the 12th October 1806, his cavalry occupied Naumburg; on the 13th, Marshal Davoust, with a whole army-corps, was stationed there and at Kösen. The road to the Elbe, the direct communication with the Prussian capital and the heart of the monarchy, was cut. But on the same day the last doubts were removed as to the whole Prussian forces being behind the Saale. Napoleon at once made all preparations for the battle he had sought. Davoust's corps could not be dispensed with in it. It received orders, whilst the main French army was directed

against the front of the Prussians at Jena and Dornburg, to make a circuit from Kösen to the west, and attack their rear. In this position, the double battle of 14th October was fought. The outflanking exercised the desired effect of spreading confusion in the Prussian ranks. But it ceased as soon as the battle commenced.

Marshal Davoust had been obliged to abandon the start he had of the enemy towards the Elbe; the French army pursued the Prussians, on the evening of the battle, not much beyond the battle-field; the latter marched the whole night through. Even though they were at first unfortunate in their choice of roads, yet these were changed the next day. Clausewitz has pointed out, in an excellent treatise, that on the 15th and 16th October the march to Wittenberg and Dessau would have been possible, and the road open to Berlin.* It required only presence of mind in order to turn it to account. The case is rarer where an army is outflanked by the enemy's centre, and when subsidiary corps, extending further afield on the sides, must be presupposed. Only in this case an action will not neutralise the outflanking. Frequently a resolute stand is here sufficient. When, on 6th August 1870, the French began their retreat from the frontier, the main army, retiring upon Metz, was outflanked by the advance of the IInd German Army upon Pont à Mousson, and the IIIrd upon Nancy, which was supported by the Ist Army. But it halted on the French Nied. German cavalry patrols discovered it there on the evening of the 10th August, ready to accept battle. The actual effect of this manœuvre was but small, because the position on the Wied was abandoned on the 11th, and the retreat continued; and as this, moreover, was made known to the Germans by their spies on the 12th.

Meanwhile, however, the first preparations had been made for wheeling the IInd Army into the line Faulquemont-Verny. Had they held out longer, the French would have ridded themselves of the grand outflanking operation. Cavalry, and the advance-guards of the IInd Army would have continued their advance westwards. But by retreating still further, a way could have been cut

* The measures taken by the French might certainly have been different to what they were. The after effects of the exertions preceding the double battle were making themselves felt in their case also.

through these. In influential quarters, the summoning of a division of the IIIrd German Army was contemplated. Had the engagements before Metz proved more serious than they actually were, the outflanking operations of this army would have been neutralised. The instance is all the more instructive, as the outflanking was, in the case before us, an extraordinarily strong movement. Whole armies executed it, whilst, as a rule, only head or flank corps envelope an enemy acting on the defensive.

He, accordingly, who in war finds himself outflanked during the operations, will find it to be his best course rapidly to force his opponent to fight. A battle draws all the forces into one place; for their significance for the issue of the war is so great that no assailant, in order to be able to continue his outflanking manœuvres, would be willing, on the battle-field, to dispense with strong divisions of his army.

If, then, it be in bold outflanking manœuvres that the greatest strength of the assailant lies, yet the side acting on the defensive is, as against him, in no wise defenceless. By resolute action he can deal most effectual counter-strokes. How these must be done, depends upon circumstances. It will vary according as the outflanking has been effected only on one wing or on both.

In the first case, an advance with rapidly collected masses upon the part of the enemy's forces which for the moment is most menacing, to wit, the troops executing the outflanking movement, is the most simple operation. If the blow at this point does not succeed, it will yet check the continuance of the menace, and restore to the party outflanked by the other his liberty of action. If, on the other hand, the attack upon the corps advancing against the front fails, the situation is rendered doubly critical; for the outflanking movement has meanwhile been uninterruptedly continued and rendered more effectual. But if the issue of the action is successful, a greater result can be achieved; for one part of the enemy's forces would be defeated and the other cut off from him and his natural communications at one and the same time.

If the flank has been turned on both sides, the task before the outflanked is more difficult. Here, too, a resolute onslaught upon one of the enemy's wings can frequently bring about a change. If

Field-Marshal Benedek could have conceived what lay before him in Northern Bohemia, and had, in consequence, marched from Olmütz upon Neisse against our extreme left, he would, perhaps, not have won the campaign, but have removed the early battle-fields to Silesia instead of to Bohemia. But such operations require, from the outset, not only much resolution but also a suitable position. Benedek, at Olmütz, found himself not as yet within the arc of the circle described by the Prussians, but opposed to the head of one of the wings. If our centre be attacked, it becomes far harder to liberate ourselves, since, in this position, the enemy is, as a rule, in great superiority, either in numbers or efficiency. An advance against his centre might, it is true, lead to the expectation of being able to cut the enemy's line into two parts, both which were engaged in the outflanking manœuvres, and with this object in view had abandoned their natural communications, but, on the other side, there exists the great danger that the circle meanwhile closes up and crushes our army in its midst.

Under such circumstances, safety is often found in employing the same forces successively against several enemies, wheeling first right and then left, keeping the several groups apart from each other by dealing vigorous blows, and inflicting upon them by degrees a number of separate defeats, which in effect are similar to a great battle.

Thus acted Napoleon in February 1814. Frederic, too, with the same army, defeated first the French at Rossbach, and then the Austrians at Leuthen. Both generals availed themselves of the possession of the so-called *inner lines*,* and with great success. Now if the *advantages* of the inner line are generally spoken of, this is not correct; for the general situation of the army forming the inner line is almost always a very critical one. Such was Frederic's in the autumn of 1757, and Napoleon's in Feb 1814. An advantage could only be said to exist, in so far as that the same situation would be still more critical if, for any reason, the to-and-fro movement between the various groups of the enemy could not

* General Jomini gives the following definition: "*The inner lines of operation* are such as an army forms in order to confront several lines of operation of the enemy, but which are of such a nature that the various corps can approach each other, and their movements be combined, before the enemy can oppose to them greater masses of troops."

be employed. An army, moreover, shut in round a fortress by the enemy, is on the inner line, without, on that account, being able to consider its position an advantageous one.

In order to carry out the to-and-fro movement between the detached masses of the enemy successfully, suitable distances are of paramount necessity. If those masses are far away, it will be difficult to force any of them to fight, and the others are of necessity lost out of sight, so that they can follow their purposes undisturbed. Only when they are given credit for very little love of enterprise, can they be left to their own devices. Thus acted the Great King, when, in 1757, he turned away from the Austrians and attacked the French. But even the Austrians, in spite thereof, in spite of all their slowness, conquered Silesia with Breslau, and Frederic had to retake it. If the distances, on the other hand, are too *short*, it is impossible to defeat one of the detached and several divisions, without the others coming up to its aid. In the moment when this takes place, the advantage of the movement on the inner line is changed into the disadvantage of being surrounded on the battle-field. Accordingly, in order that inner lines may be turned to successful account, moderate dimensions are required, so as to enable one of the detached divisions to be defeated before the others are on the spot, and to provide that these are not lost sight of. If detached groups are nearer together than two full days' marches, it may be laid down as a principle that none of these can be separately defeated. By this means the favourable time for action upon the inner line becomes much restricted. If the advance is made too early, there is danger that it will be merely beating the air; if it be made too late in the course of the battle, we are caught between the enemy's divisions, which close upon us on all sides. This state of things impedes our resolve to a great extent. When the enemy employs his cavalry properly, it will rarely be possible to perceive against which of the approaching opponents we must first turn. But clearness is doubly necessary when everything urges to prompt action. Only generals of great determination can make proper use of the inner lines. The irresolute man vacillates. The uncertainty as to whether he has chosen the right moment, and the right opponent, will nip his operations in the bud. Even Marmont, the clever

deviser of Napoleon's brilliant operations between the detached groups of the Silesian army, before that period, 10–15th February 1814, so propitious to the French arms, began, considered that the favourable moment had passed and hesitated. He also would only have devised, and not executed, the movement. And yet Marmont was an excellent captain. The original intention to advance resolutely at the critical moment with the inner line, results, when that moment has not been found, or has been missed, in a final relapse into the defensive and the preliminary adoption of a *central position*. It is said, in favour of this latter, that from it we can equally well oppose each approaching enemy, and can take the offensive in all directions with the same prospects of success. But this advantage claimed for it is a very dubious one. It is either great uncertainty as to the position, or, more frequently, want of resolution on the part of the general that brings armies into *central positions*. And thus it comes about that, as a rule, only the second advantage claimed for it is of practical importance, namely, that it is possible *to run away* with equal ease in all directions.

To these general reasons against the successful carrying out of operations upon inner lines, which have always existed, we may add also particular ones suited to these modern times of ours.

The belligerent operating upon the inner line is only advantaged by a complete victory on the field, for pursuit will almost always be impossible. He must look out for his other opponents.

Now it has been asserted, that we must no longer reckon upon short annihilating blows. The successes of Frederic and Napoleon lay in a time when the independence of the higher commands was not nearly so general and so developed as at present. In those days it was more allowable to reckon upon perplexing one column by a victory gained over its neighbour; and throwing all the measures of the enemy into confusion. In these days that is impossible. Now-a-days we must, as a rule, be prepared for an obstinate and energetic advance of all the enemy's generals towards the centre of the ground. The great numerical strength of our armies, too, renders the employment of inner lines a matter of difficulty. For this, prompt concentration and rapid evolutions

of the troops are essential. That can be performed with one or two, but not with ten or twelve army corps. Such masses need more freedom of movement than they obtain in such situations.

One advantage is, that the troops upon the inner lines remain nearer together, and the influence of the general is greater than it would otherwise be. The latter has his troops more under control than his opponent, who is performing outflanking or concentrated movements. Uniformly good subordinate commanders are here not so necessary for the success of the undertaking. One or two dexterous commanders, to oppose those hostile groups which need only for the time be kept under observation or notice, are sufficient. Napoleon, in the days of Montmirail and Château Thierry, only needed Marmont's help, in order to keep off Blücher, whilst Sacken and York were defeated. But all the greater are the demands which are made upon the supreme commanders. Great and prompt resolution, extreme energy, bold daring; these alone lead to victory when one sees himself surrounded by strong enemies.

On the whole, it may be said: *it is more difficult to bring to a successful issue a defensive upon the inner lines, than to execute an outflanking or concentrated attack.* Yet true it is, that the considerations which lead to this conclusion are not deduced from an abstract and propounded case, where the enemies are assumed to be equally strong, equally valiant, and equally well led, but rather from such as reality shows us, where it is only one side that is fitted for the outflanking operation owing to its superfluity of strength or energy.

If the combatant armies in their manœuvres confront each other in parallel lines, everything will depend upon who is the first to decide upon concentrating great masses upon a single point, and begins and carries out his designs with the greater dexterity and energy. Therein lies the sole means of securing a superiority by evolution. All the rest must be left to the battle. In the onslaught against the enemy's centre, in order to rout him, there will be the danger of being outflanked, and of seeing the corps hurrying up from the enemy's wings, appear on our own flanks. In such a case we should, for the most part, be content with the lesser success, and direct our concentrated attack upon the

enemy's wing. If we have succeeded in defeating it, outflanking operations can next be directed against the rest.

An attack upon the strategical flank of the enemy will always have the great advantage of compelling him to hastily collect his forces in a direction which is for him at once inconvenient and unforeseen. Benedek's march from Olmütz upon Neisse, which we have here taken as an instance, would have been productive of similar effects. The massing of the Prussian forces between Dresden and Neisse could not have been effected without difficulty. But only peculiar circumstances render such an operation on a grand scale possible.

The defender, if he has previously taken up a flank position specially for this purpose, may rather turn upon the flank of the assailant as he marches by. The strong combatant will certainly not resort to this means, but simply bar his opponent's way. But the weak may make successful use of it. When street-boys fight, and the one who has been defeated posts himself at the corner of the next street, in order to fall upon the victor again from the side; this is a picture of the flank position. We should describe this certainly as being a tactical flank position. But the same picture may be readily transferred to extended strategical conditions. The flank position does not block the way of the enemy, but lies close to it, whilst commanding it. When, in the early part of October 1806, Napoleon wished to advance from Franconia by way of Hof, Schleiz, and Saalfeld to Saxony, and the Prussian army was posted behind the Saale, it had taken up a *flank position.*

Clausewitz, with reference to this, says: "The position behind the Saale was a flank position such as is seldom found; it promised excellent conditions for a battle."

He adds the following explanation: "The prime condition of a flank position is, that the enemy cannot evade it, but must respect it. This condition is exceedingly difficult to fulfil, and yet it was here completely satisfied. For the French had, between the Saale and Bohemia, such a narrow strip of country for their communications, and this communication with reference to the Saale lay so entirely at the side, that they could not possibly advance without going in quest of the Prussian army behind the Saale.

The second condition of a flank position is, that in a battle itself it may hold out such advantages that it is worth while to take it. Now the valley of the Saale is a deep cutting in mountainous country, and such as the enemy could only pass in detached columns. On the left bank, it is accompanied by a level fruitful plateau, which allowed our army to make the most precise evolutions. Whilst small divisions of our army occupied the Saale valley itself, and were able to offer a comparatively long resistance, our army was able to throw itself upon that portion of the enemy's army that promised the greatest advantage.* The enemy fought with his back to the steep precipice of the Saale, scarcely occupying sufficient room to develop; he fought with the kingdom of Bohemia in his rear, and, at the side, the loop-hole of escape into the Voigtland, through which he must retreat."

It is the nature of a flank position that it unexpectedly compels the enemy to develop himself for battle in a given direction, and at a given place where he has not intended it, and where, accordingly, in all probability it is extremely unwelcome to him. He abandons his road thereby, cuts himself off from all his natural communications, and develops himself on his flank, in order to fight his opponent in a disadvantageous situation. He has, at the same time, unknown to himself, begun a flank march, and is, to his own surprise, interrupted in it. Where a flank march is intended, it is the rule to change from one road to another lying sidewards, having, however, as a rule, the same direction only when in actual sight of the enemy. In this case, the combatant does not cut himself off from his retreat, whilst he who is compelled to face round to a flank movement of the enemy will have him permanently on his side. When, accordingly, the attack fails, it is difficult to retire with safety.

But, in order to be attended with favourable results, various conditions of a flank position must be fulfilled. The enemy approaches in a certain breadth; if he perceive early enough the flank position, it will be easy for him to give betimes to the heads of his

* Unfortunately there was also here instanced what we have said of central positions in general. The hesitation as to when and in what direction the offensive should be taken lasted until it was too late to take the offensive, and a retreat was decided upon, when the army was suddenly overtaken by the enemy, and totally defeated.

marching columns another direction, and to avoid the principal disadvantages which it might impose upon him. A flank position is well chosen, when the enemy must defile past it on a single road. That is the case after he has just passed a great river, and has only a single bridge behind him. In such a case, to go out of his way will be highly disadvantageous to him. The flank position, moreover, exposes the flank to the assailant when marching up against him. The flank, then, must either find a natural protection in the country, or lie so retired and hidden that the enemy cannot surround it. Finally, the impediment which a flank position must have before its front, for its own safety, must not be of such a nature as to preclude an attack being made upon the enemy when he defiles past. But we must always be prepared for this; for not merely the intention that has been previously entertained, but carelessness also can lead to it.

All these manifold conditions are seldom fulfilled, and therefore effectual flank positions, such as that of General von Werder at Vesoul against the march of Bourbaki upon Belfort in January 1871, and that of Osman Pasha at Plevna on the side of the Russian advance across the Balkans in the summer of 1871, are exceptions.

Here, also, it is not the position, but the weight of the mass of soldiery occupying it, that is decisive for the issue. A weak opponent may take up a flank position. All he will attain will be, that he will be there watched over by subordinate forces, whilst his opponent quietly pursues his aims, instead of abandoning them. When Prince Frederic Charles with the IInd Army advanced upon Le Mans on the 6th January 1871, the French division of Curten appeared at St. Amand upon his left flank, almost in his rear, without checking the general operations for a single day. *It was not feared, that is the truth.*

Where it is necessary to save time, or where a combatant will only allow the enemy to be apprised of his intentions to a certain extent before he himself adopts decisive measures, he can temporarily avail himself of a flank position. If his object has been attained, and his adversary forced to develop his strength, he abandons it before he is attacked. This was the object of General von Werder's position at Vesoul; in this manner, the Prussians

might possibly, on October 6th, 1806, have escaped from Napoleon's embrace on the Saale, and the French, in August 1870, on the Wied, have hindered that of the Germans. But herein we shall always have to hold out to the last moment, and not allow it to pass by unnoticed, which it readily does. Such action, accordingly, always involves great hazards.

Moreover, not only the assailant in the face of a flank position, but the defender also in it, will be obliged to cut himself off from his natural communications. If now he will manœuvre out of his flank position, he must possess great freedom of action, be in his own country, or in a portion of the enemy's country that he has made subservient to himself.

In all manœuvring in war, special regard must be paid to such roads and railways, upon which reinforcements of men, ammunition, and commissariat are conveyed to the front, and upon which the sick and wounded are conveyed to the rear, as well as to all such along which, in case of a disaster, aid can be found. But these considerations paid to "lines of communication," and to the natural "line of retreat," must not, in a vigorous campaign, be the all-decisive ones. Attention can only be paid to them in so far as they do not prejudice the advancement of our own positive intentions, which are directed to the annihilation of the enemy. He who talks much about retreating when about to attack, would do better to remain at home. He who is victorious, secures at once his lines of communication and his lines of retreat, and the defeated combatant also often reaches them, though with difficulty, because defeat quickens his steps, whilst the victor rests upon the scene of his triumphs. At Zorndorf, by a bold march from the "Drewitzer Haide" to Klein-Camin round the left wing of the Prussian army, the Russians regained the natural retreat to their home, which they had previously lost. Frederic, after his defeat at Hochkirch, first marched off between both the wings of the Austrian army, which were prepared to surround him, to Klein-Bautzen, and then executed a flank march to Görlitz, in order to restore his communications. The eye of the general should gaze before him, and not look back for help and ways of safety.

However, an unnatural arrangement in respect of the arteries

of an army, for the lines of communication must be regarded as such, is never convenient. They are best placed behind the centre and at right angles to the front taken. They are thus best protected from the enemy, and can be easily reached by all the troops. The enemy that will threaten them must get far round the wing. An oblique front situation is in so far dangerous, as one wing has a more difficult communication with the rear, and the enemy on one side can with greater ease operate against the rear connections. Most unfavourable is the case where the line of communication runs from a wing, or even from a flank; because, in this case, its protection by the army ceases, and special measures must necessarily be taken for its defence. But these drain the army unnecessarily of strength. Only in the rarest cases will a strong body of troops be restricted to a single road of communication. We, in civilised countries, prefer to assign its own line of march to each army corps. Behind it follows the baggage, and then the reinforcements and stores of all descriptions from home; it becomes a line of communication, which is permanent. And under propitious circumstances, and where armies are not too large, each corps has an artery of communication behind it, for its own exclusive use.* Only where a deeper invasion has been made into the enemy's country, are all these lines of communication united into a single line of railway for the whole army; for several parallel lines of rail, all leading in the same direction, are rarely to be met with.

As the to-and-fro traffic upon the rear lines of communication is perpetual, and as many arrangements have to be made upon them, which are of a permanent nature, it is not easy to remove them elsewhere. Such removal can, at all events, only be effected after a considerable time. Attention must, accordingly, be paid to this when executing movements. Where corps cross each other at the front, this will naturally entail a crossing on the respective lines of communication, unless the complete exchange of one line for another be allowed. Crossings of baggage and

* This is also in harmony with the administrative independence of an army corps that has to provide for its own maintenance, and is in this respect only dependent upon the Ober Kommando, so far as general dispositions are concerned.

transports on the march always lead to errors and collisions. An alteration in the arrangement of a corps, which has taken place at the front, is not always communicated to the rear communications with sufficient promptitude to prevent the baggage waggons &c. going astray. If an interruption in the movements ensues, the general must, in each case, restore to each division its old order and sequence from one wing to the other. The evolutions effected by the army often afford opportunity for this to be done. But the general must not consider himself bound to the original arrangement. Inconveniences are not serious disadvantages. In modern times, troops are only dependent upon their lines of communication in respect of their ammunition, which must, of course, be brought up from the base and upon the railway. In all other respects there is great liberty of action, and consequently a turning of the flank, or a threatening of the rear and the lines of communication, is, in these days, of not nearly so much effect as in former times, when it was often absolutely decisive for the issue. Especially, never will again the simple geometrical cutting off of a line of communication be of effect, or, at all events, only in the rarest cases.

Moreover, for a natural line of retreat, a line of communication lying at right angles behind the centre of the front is the most agreeable; for an army forced to retire chooses this direction before all other. Every other is a disadvantage, owing to the difficulties attendant upon controlling troops in such moments, yet, as we have seen, not so great a one that the safety of the army is thereby jeopardised. Lines of communication and retreat *may*, though they *need not always*, coincide. The first lead back to the original sources of strength, the others thither, where, at the moment, an increase of strength is to be sought. The terrain plays in military movements only an insignificant part, as its peculiarities almost always affect both parties equally. Wherever the enemy stirs, we oblige ourselves to follow suit with our army. The network of roads is decisive for the point at issue.

Great wars are inseparable from great roads of communication. The defender who retires can, it is true, turn the terrain to account by destroying bridges and roads. When General von Zastrow,

on the 20th December 1870, desired to advance from Auxerre upon the Upper Loire in order to support the IInd German Army, he found all the roads rendered impassable in such a systematic way, that his operation appeared well-nigh impracticable. But time is necessary for such works of destruction. Temporary interruptions we are accustomed in these days to overcome. In order that the assailant may not allow himself to be disadvantaged by the state of the country, the wisest course for him will be to push ahead, and keep his adversary constantly employed.

Movements begin at great breadth, and with troops distributed upon as many roads as possible. Wherever practicable, the corps divide, utilizing as many convenient byeways as possible. Upon the point where the cavalry discovers the approaching or stationary enemy, the marching columns draw together. Manœuvring begins. An outflanking operation, or an attack by the main body upon a wing or the flank, is begun. The enemy replies with similar measures. He escapes being surrounded, changes his direction or his front, adopts a flank position, and abandons it because the prospects of the threatened battle appear too critical. He is pursued, and falls back, but perceives himself to be even more deeply involved in brushes with the enemy. The troops draw even closer together.

The intention to make everything as comfortable as possible for them is seen to be impracticable. The baggage, with the exception of the most indispensable part of it, must be left behind. It is left at places whence it can be later brought up with ease. By this means, the roads immediately behind the leading corps are free, and others can follow in the same direction, and are possibly enabled, when the expected battle takes place, to support the foremost on the same day. It may happen that even two armies pursue the same direction upon a certain number of roads. The leading army had, perhaps, to execute a grand outflanking movement. The enemy has shown himself here in greater strength than was expected; a reserve army must as speedily as possible be sent to its assistance, in order that the first advantages be not lost. The army which is leading, removes its baggage quite out of the line of march of the army supporting it. It despatches it to roads

which form the rear communications of its wing corps, and "echelons" them there, where they can always find their way back again to their corps. Or it draws them up close to itself, empties, when any lengthened advance is out of the question, the commissariat columns into magazines, or upon the waggons, which in this case are more heavily laden, and which each troop keeps immediately by it, and sends them back by circuitous roads. *Every means of keeping the roads clear, and making room for the movement of the combatant columns, is right to adopt in such moments.* Village encampments (ortschaftslager) become more and more like simple bivouacs. Such a state of things cannot, of course, last long. Without an action, the two sides, that have approached each other so closely, no longer part.

The battle cuts the knot. The defeated combatant endeavours to escape. The victor again catches him up. But in order to effect this, and to get more rapidly ahead, he must leave his confined position and distribute his masses over a larger space, where they find more roads. Baggage and columns are brought up; the troops have latterly been badly provided for, and they must be accommodated in more roomy quarters. And then, again, the enemy has recovered and halted. Again there ensues a concentration of forces, and another battle ensues.

Thus the movements of armies are seen to be a constant *separation* and *union*. For both, the right moment must be chosen. If the forces are prematurely collected together, it will be imperative to part them again, or otherwise to march with closed ranks in a narrow space, and upon few roads. And then, in such a case, the advantage of the union of the forces is neutralised, either owing to the front having to be extended afresh, or owing to too great depth in the marching order. The commander that keeps his troops too long concentrated, overlooks the fact that the life of the army demands space. He who is too late in collecting his forces, or separates them again too soon, exposes himself to the defeat of his detached divisions. Laws for the combination of movement and battle do not exist. The simplest manœuvres are the best; what is required is not to display art, but to defeat the enemy. A careful study of the map, with compass in the hand, is the best means of solving the task. Battle demands a collection of all the forces.

But it is necessary always to bear in mind that every concentration of troops is inseparable from hardships and privations for them, that quarters and provisions fail, and that diseases find a fruitful soil. Separation is therefore preferable, but it must guarantee unity of action at the crisis. *It is not the massing, but the co-operation of troops that is essential in war.*

9.—*The Action.*

When Clausewitz describes to us the strategical position of the Prussian troops, in their flank position behind the Saale in October 1806, as being favourable, and Napoleon's advance between the Saale and the Bohemian frontier as a hazardous undertaking, we are forced to ask ourselves what reason the Emperor had for putting himself in such a situation, and how he ever managed to emerge from it victorious. The answer is simple. *He was certain, under all circumstances, of his superiority in action.* The superior numbers, the military experience and tactics of his troops, and reliance upon his own strength, gave him confidence that, wherever and howsoever a collision came, he must eventually be triumphant. Such a feeling enormously facilitates strategical ventures. Though the combatant has retreat at his side, and at his rear a frontier or a river, be he obliged to fight with a false front, let the lines of communication be unfavourable for him, *all these circumstances are not worth mentioning, if he is the stronger on the field of action.* The pre-eminent importance of the action in war is evidenced by all experience and by the history of every campaign. We are not here treating of any particular action, but of action generally, in order to examine its nature more closely.

"*L'arme à feu c'est tout, le reste ce n'est rien,*" is a saying of Napoleon, of whom it has frequently been said that he conceived his strength to lie in the bayonet attack of great masses. If we reflect, that in these days great effects can be produced with the rifle up to more than 1,000 metres, and with artillery to the double and treble distance, we shall not be disposed to doubt the correctness of the above cited maxim. Our modern actions are decided by great masses of projectiles simultaneously hurled at the enemy. Too

strong metaphors are employed when "covering the ground with lead," "sweeping the field with bullets," and so on, are spoken of. But in general terms the nature of the case is hereby aptly expressed; for when a battle rages near at hand, it is impossible for anyone to stand upright and uncovered for any length of time, or even to show himself on horseback. Only a would-be suicide may attempt it, for, as is well known, Death never takes such as offer themselves to him. Thick masses of riflemen, lying flat on the ground, in groups forming a long consecutive chain, in our modern infantry engagements, send against each other continuous streams of blue pellets, until the one side gives way. The unsuccessful attempts made with mitrailleuses are a symbol of our modern mode of warfare. Machines which would unceasingly strew balls, like drills sowing grains of corn, are now desired. Yet all the same, the legend of bayonet charges—which Suwarow neatly put as follows, "The bullet is a fool, but the bayonet is wise,"—is, in these days, of deep importance. The rifle causes losses in the enemy's ranks, and the bayonet—the close approach—increases the impression which the former causes, by inculcating terror. Both must go hand-in-hand; for it is not so much annihilation of the enemy's warriors, as annihilation of his courage, that is to be aimed at. The victory is won, as soon as the conviction has been brought home to the adversary that he has lost the day. This conviction he will, in spite of all the fertility of the rain of bullets, never gain, as long as the combatants remain at the same respectful distance from each other. On the contrary, should the enemy approach, the proof is given him that all his firing does not prevent the other from coming to close quarters with him. The danger presents itself to him in a threatening shape. If, then, from the last position taken, a decisive rush is made, without any intermediate halt, the enemy, as a rule, will consider himself defeated, and give way. This rush is called a bayonet-charge, although the bayonet has, generally, little to do with the matter.* *His still irresistible strength lies in the conviction forced upon the adversary, that a body of men which possesses the energy to force its way through a deadly shower of projectiles will, at a push, certainly possess the*

* In actions which take place in villages and in woods, when the combatants come to close quarters unexpectedly, it is still employed.

requisite energy to finish him off with cold steel if he awaits its approach. The shuddering fear of death drives him to flight.

In the Russian army, the marvellous efficacy of the bayonet is preached even in these days. When illustrious writers, in dealing with it, recommend a storm by compact bodies, the doctrine is carried too far. Bayonets must only be employed in cases where confusion or want of a clear view lames the enemy's fire. In a thick wood, or at night, it will be better to push forward with columns, than to direct an ineffectual artillery-fire among the trees or into the darkness. But, otherwise, it is necessary to break up into loose order. The rush in skirmishing order betrays also a higher degree of bravery, because in it the individual is more independent, and is not carried away so much by the whole as he is in close order. Herein is expressed, not the strength of dogma, but the strength of the collective training of the soldiery, whether they are capable of a resolute bayonet-charge or not.

But a breaking up into skirmishing-order must never take place prematurely. A body of men broken up into clusters of riflemen is lost to control; the command their leader has over them is considerably diminished. It is hard to manœuvre. A battalion in close order can at the word of command wheel right, left, forwards and backwards; but a company, fighting as a cluster of riflemen, cannot, although only a quarter as strong. The impulse for a further advance during the action is usually given by fresh contingents coming up in a compact body; for the resolve generally proceeds from the commanders, and these now have only complete control over compact bodies. They are the tools of their will. In the first part of the campaign of 1870, when as yet our soldiers were not very well acquainted with the new long-distance rifles, we often made trial of advancing within the distance at which our needle-guns were effectual, then breaking up into loose order and spreading for skirmishing. Great losses were thus unavoidable; for, whilst our infantry covered hundreds of metres across the field of battle, they were showered with projectiles, without being able to send back a single one. In such a situation, the French were at rest, and fired well; but the Germans soon knew how to help themselves. A very loosely extended body was sent forward; this engaged all the enemy's fire, and behind it the troops advanced

without much risk. In the latter part of the war, the aid of the artillery was waited for. In this period, charges, which in the month of August at Wörth, Spicheren, or Metz would have cost thousands of lives, were victoriously executed with little loss; such as was, for instance, performed by the 3rd Army corps on the first day of the Battle of Orleans, against the heights of Chilleurs aux Bois, and again by the 9th, at the storming of the Plateau d'Auvours before Le Mans. Other than these simple measures "for avoiding losses" will also be unnecessary in the future. They will be all the less so, as the arming of the infantry from that time has become uniform. He who ponders too much how to avoid losses, forgets how to bear such as are necessary.

How close to the enemy we should approach before breaking up into loose order, depends upon the terrain and the special circumstances of the case. As the support of compact bodies is almost always necessary for forcing riflemen ahead, it follows that the interval between them and the enemy's position must not from the outset be so great that it will be necessary to halt more frequently than is necessary to infuse fresh blood. Besides, in advancing through corn, underwood, gardens, and villages, the scattered masses of infantry lose much of themselves; for the eye of their officers cannot observe them as it can in the ranks. For this reason also, we must avoid having to pass over too great distances in open and loose order. It is wise to be moderate in this respect.

In modern times, the attempt has been made to regain to the fullest extent control over these skirmishing bodies; to bring disorder into order. This is to be effected by making them very thick. Our chains of sharp-shooters are very similar to the long infantry lines of the time of the Great King, only that ours do not advance with a parade step, and do not fire standing, but lying down. Ours have, moreover, lost the straight line, and cling to the ground wherever they find cover and advantage.* And then an attempt

* We certainly often, to-day, see the military love of what looks pretty rebel against this, and so we are brought back at last to Mollwitz. We certainly comfort ourselves with the reflection that this is only possible in peace-manœuvres, and is spontaneously abandoned in time of war; but here the force of habit, which in process of time makes of this illegal game an awkwardness in case of necessity, is under-estimated.

is made, as was the case a hundred years ago, again to regulate firing by word of command. This problem is, in these days, less capable of solution than it was in those; because the scattered order, and the noise and confusion of the rapid firing have all increased, because the human voice is drowned, and the excitement of the battle engrosses, more than it ever did, the attention, the thoughts, and the mind.

The desire to have the expenditure of ammunition under control is a natural one; for, in case of waste, it may be difficult to supply it; and a body of men that has exhausted its ammunition is, for the moment, a dead force.* It is, moreover, established that, considering the precision of the rifle, we may, according to a computation of probabilities, expect to hit a distant object by a great number of bullets simultaneously hurled at it, but not by single shots. And then, considering the uncertainty of all calculation, it would appear practical that all skirmishers should not take one single and fixed distance, and fire accordingly, but that some should fire further than the distance given, and others shorter, in order thus to cover a zone with projectiles, within which the enemy will certainly be hit. And, again, a mass of bullets simultaneously fired at the commencement of an action will possibly allow of the effects being visible, so that, after various distances have been tried, the right one is found. But the success of such endeavours is never quite certain, and it were an illusion to believe, that a number of men would, in these days, allow themselves to be employed in battle, at the word of command, as a living mitrailleuse, to be directed, at will, now in this, and then in that direction. This is only, apparently, possible in time of peace in military evolutions; for the thinking-machine of the ordinary private soldier, works far too slowly, as to be capable, between the object being pointed out to him and the word, "Fire!" of keeping his eye and his weapon directed upon that object.† He

* The experience of the last great battles have, however, at present only proved that, in the precautions taken for ensuring the supply of ammunition, the aid afforded one body of troops by another was quite sufficient to make good the deficiency that had arisen in other quarters. A general deficiency never took place.

† The surprisingly good results often obtained at the rifle-butts by volley-firing, at the word of command, certainly prove of what the arm is capable if properly handled, and when circumstances are favourable to its use. But it would be extremely dangerous to draw thence conclusions as to its effect in action. In addi-

hears the ring of the words, fires blindly into the smoke, and, as a rule, only awakes later to the consciousness for whom the bullet was really intended. It often happens to an educated man, who is accustomed to think fast, that he hears something, but yet asks the speaker what he has said; and then immediately, before the other has had time to repeat his words, himself knows what it was. In such a case, also, the slow working of the communication between the ear and the consciousness is at fault. Now what, apart from any danger, is difficult, will be quite impossible in the wild excitement of battle. We must, accordingly, content ourselves with a very small portion of the desired effect. A certain and definite influence can be exercised by the officers upon their men when the fire is first opened, and something of this influence remains to its later course. Then the mass of soldiers not only learns how to aim, but also to calculate the possibility or impossibility of a success. Accordingly, in the wars of the future, more care than heretofore will have to be taken that the showers of bullets are directed upon the right objects. *As these objects are much more clearly and generally known to the attacker, who by his movement takes a direction upon certain points, than they are to the defender, it follows that it is a great error to assume that the advantages of a fire-action are entirely on the side of the latter.*

As the volume of the streams of fire decides the day, that com-

tion to the fact, that in rifle-exercises the riflemen are not disturbed by danger, and all excitement of battle is wanting, and moreover that, as a rule, good weather and normal circumstances are chosen, we must also chiefly remember that here the whole attention of the rifleman is directed upon the butts at which he must fire. The manifold perplexing impressions and distracting incidents that in real battle engross the thoughts and senses of the man are here wanting. The excellent history of the Second Regiment of Foot Guards, written by Baron v. Lüdinghausen, called v. Wolff. p. 234, speaks in terms of praise of an under-officer of the 4th company, Serjeant Schulz, for having, whilst under fire at the Battle of St. Privat, observed that his men, in the excitement, were firing at 400 paces with the sight of the old needle-gun up, and for having ordered it to be altered. If, then, the simple fact, that a superior in the midst of danger preserves his composure and presence of mind so far as to correct the sight, be considered—and rightly—something extraordinary, no too high estimate of the precision of the fire of great masses in battle must be indulged in. In order to attain similar results, as at the rifle-butts, the employment of the correct sight is the most elementary of all demands made upon the troops, and the precise marking of the object, proper holding of the weapon, proper pulling of the trigger, and many other things besides, all which must certainly be renounced, must be added, if those are considered difficult and their fulfilment remarkable.

batant, who could bring all his weapons simultaneously and collectively into action would have the greatest chance of success. It is impossible to do this completely. We have already seen, that one part of the troops must be first kept back, in order to enable all the various positions taken in the advance against the enemy to be successfully surmounted. Moreover, for unforeseen emergencies, a reserve is, under all circumstances, demanded. Only by degrees do all the forces come to engage in the battle. *But we must reflect, that a gradual consumption of forces is a necessary evil, and is no advantage of the new mode of fighting.*

This must be paid regard to in the arrangement of an action. A general consumption of the forces is often brought about by the fact that such an arrangement was never made. The thirst of the subordinate commanders for glory, and restlessness on the part of the higher commanders, drives the troops by driblets, just as they come up, into the battle.

This cannot frequently be avoided, because the engagement results from unexpected brushes with the enemy, and becomes at once so violent that there is no longer any option. But whenever it is possible at all, the advance and a well-ordered development of the forces should precede entrance into fire, and a commander should leave himself time to bring his troops first into the direction in which their attack will be the easiest and the most effectual. *A careful arrangement of the battle secures the simultaneous and collective employment, if not of all forces, yet of the major part of them.* It spares much bloodshed, and, in the course of the battle, readily recoups the time it has cost previous to it. If, in the future, this arrangement is allowed still more scope, the idea of the gradual consumption of the forces will be rectified. The duration of the battles will not, perhaps, be ordinarily rendered shorter, because preliminaries, and a thorough preparation, are inseparable from the notion of arranging a battle and require time; but the real decisive act of the whole action will be compressed within a narrow compass, and will be again represented as a great collective exertion of a weighty army, and not as the sum total of a number of small individual blows, which are only connected, in so far as they are all directed towards the destruction of the same object. Even there, where the battle was the result of a

sudden meeting with the enemy, it will, perhaps, be able to be brought to a stop with part of the troops, whilst the rest are drawn up for battle after cool calculation.

What has been here said relative to an infantry action, is likewise applicable to the whole army. When the troops are drawn up for battle, the co-operation of all three arms is effected. The artillery is the indispensable companion of the infantry. It makes room for the latter, where it is not able to force its way single handed. It prepares the way for the battle, shields the foot soldiery from unnecessary losses, when the best forces would be wrecked by too great impediments, and provides it with covering and defence when it is compelled to retire. As the enemy uses his artillery in a like manner, the action commences with an artillery engagement. Only when the enemy's batteries begin to be silenced, and their defeat is apparent, does the infantry attack take place. The artillery accompanies it with its guns, without exposing itself to the effectual rifle-fire of the enemy. This fire it silences from a distance, and thus prevents the great disasters which would otherwise easily befall its own infantry when storming against firm positions. No bullet can penetrate a garden wall. Infantry posted behind loop-holes will return the fire of the assailants, almost as firmly as in peace manœuvres. The best infantry in the world can be paralysed under such circumstances. The braver it is, the more will its bravery enhance its own destruction. In order to avoid this, the artillery must support it. Even though the shells and shrapnels of the latter produce no material losses, they yet bring it about that the defenders hide themselves behind their cover, and pour forth their fire blindly without seeing whither it is directed. He who has ever in real war learned to know the difference between an attack upon infantry not played upon by artillery, and upon infantry which has, for a long time, been exposed to the effect of artillery-fire, will never forget it. The explosion of the first shells in the lines of the defenders, who have a sheltered position, produces an almost immediate effect.

Upon the side of the defender, the batteries which had been silenced in the artillery engagement again resume their activity, immediately the infantry action begins in earnest. They hold out

then with the foot soldiery in the latter's positions until all is over, disregarding the danger of falling into the enemy's hand. At the last moment, they assist in beating off the enemy's onslaught, or cover the retreat of the defeated defender.

The part played by the artillery is not a decisive one; for only a very inferior enemy will allow himself to be driven out of his positions by distant artillery-fire, and abandon them before hard pressed by the infantry. But, all the same, it plays a considerable part. Infantry cannot any longer dispense with its assistance.

The cavalry will also again play its *rôle* in deciding the day, as in former days, when Seydlitz led the attack at Kolin, Rossbach, and Zorndorf. This claim of the cavalry is, for the most part, justified by the recollection of certain situations in the late wars. The lines of sharpshooters were often seen to dissolve under the fire, to become thinner and thinner, and, in their endeavour to surround the enemy, to extend, disperse, and become ragged. Their energies became exhausted in advancing through thick corn or underwood, in climbing hills, in a breathless charge, following immediately a long march and the evolutions of compact masses across country. The ammunition almost gave out. Many officers fell; the command nearly ceased. Then arose in the hearts of many, who saw all this, the fearful question: how if now the enemy's cavalry appeared on the flank, and careered over the battle-field? It would without more ado sweep away the wreck of the infantry! When, in the evening of the battle of Vionville, the dusk descended, and scarcely anything more could be discerned of the infantry on the wide battle-field, and the great masses of the artillery of the centre, more than 100 guns strong, stood defenceless, a similar thought arose in our breasts. It appeared impossible to check a resolute cavalry-charge, that might have hurled itself upon these batteries. This view of the case was one of the reasons for despatching all our available cavalry against the enemy.

Every great battle of modern times is accompanied by such episodes. But these are primarily perceived only on our own side, and not on that of the enemy, for the distances in action are considerable. Then, again, the semblance of weakness is

greater than the reality. French squadrons of horse in 1870 hurled themselves, defiant of death, upon the German infantry advancing in loose order, and was yet shattered and destroyed by the fire of small detachments. A squadron of cavalry presents too large an object so as to be able to hold out when within easy range of infantry-fire. It must even retire before the shrapnel-fire of the artillery, which pours balls in showers over it, before making its charge. If it does not find sufficient cover, it can only seek safety in distance. If its commanders even ride as far into the action as mounted officers can, in order to inform themselves as to the situation, they will, all the same, see but little. The moments of weakness in the enemy are only perceived in the foremost rank of the infantry. It is from their behaviour that the commanders-in-chief first divine that a crisis is at hand. If, then, the cavalry generals must hurry back to their squadrons and bring them into action, valuable time is lost, and the favourable moment may meanwhile pass by. Masses of cavalry, however, in motion, are easily noticed. A cavalry division in trot kicks up as much dust as does an army corps in rapid movement. Where the country is at all open, it immediately attracts all the enemy's fire. The latter knows full well that it is a question only of minutes, and that, for this time, he can interrupt the fire that is being directed against other objects. It is scarcely possible to miss a mark like a squadron of horse. The artillery can turn to account the greater ranges, and the infantry direct its bullets so precisely, that, at a distance of 700 or 800 metres, they do not rise above the height of a horseman. In quick fire, it launches, within the space of a single minute, innumerable bullets against the approaching enemy. The horses have improved since the days of the Seven Years War, and can better endure rapid careering over great distances. Yet this increase in their power has not kept pace with the increased effect of arms of precision. Formerly, again, the fighting powers of the infantry were broken as soon as their compact order was broken and scattered. In these modern times, they begin with being scattered. Each small detachment is in itself a useful whole; even the individual does not feel himself defenceless so long as he has cartridges with him. The relation between the cavalry and the

infantry has become perfectly altered. Seydlitz, Zieten, Driesen, Gessler, were able to keep their squadrons in readiness within 800 paces of the enemy, to ride up in person to within half that distance, survey the enemy, as, in these days, an infantry brigade at drill is inspected, discern the moment when the lines have begun to waver, and then throw their force upon them. It was only necessary to break it at one point; and then the line of battle connected with it was rolled up. Now, in these days, success is infinitely more difficult, even infantry that has been ridden over by cavalry is not done for, but only its fire interrupted. By repeated charges, the cavalry hopes to work surprising and lasting effects, and, whilst the advanced companies of infantry engage the enemy's fire, command his attention and raise a cloud of dust, shrouding those following, to bring up its forces without being perceived, and with little loss. Moreover a hilly and sheltered country, which is more favourable to its activity than the open plain, affords it the opportunity of making an unexpected charge. But even these advantageous circumstances will only rarely neutralise the great superiority of infantry-fire.

We certainly often hear the remark, that it is only necessary to induce the cavalry to expose itself in the battle to like destruction as the infantry, in order to achieve great and successful results. But such persons do not reflect that, in this demand, there is something actually *inequitable*. Clausewitz, after having described the fruitless charges of the French cavalry upon the grenadiers under Prince August at Prenzlau, says: "*The author has been here convinced that it lies in the nature of a trooper not to wish to be shot on such occasions.*" The possession of a horse furnishes a man, in the hour of the greatest danger, with the means of saving himself; and it cannot be expected of him that he should not avail himself of it. The infantry would, also, often gallop away, if it only had horses. But it cannot shake off the enemy, even when it perceives him to be stronger. The marvellous obstinacy of his resistance, which at times justly rouses our astonishment, is partly due to the fact that he must either defend himself or be utterly lost.

To make use of the horse, in order to escape death, comes so natural to our human feelings that we consider flight on horse-

back far less disgraceful than flight on foot, even when the motives and the objects are identical.

Schiller could allow the Duke of Friedland to confess quietly

> Und dieses Thieres Schnelligkeit entriss
> Mich Banniers verfolgenden Dragonern,

without being apprehensive that his hero would lose respect in our eyes.

How different would it have been had he put into his mouth these words:

> Und *meiner Beine* Schnelligkeit entriss
> Mich Banniers verfolgenden Dragonern.

It would have morally annihilated him, although to save oneself on foot is, perhaps, only a test of greater tenacity, physical strength, and presence of mind. Wallenstein *riding away* remains a hero; the same *running* away is a ludicrous coward, on whom the curtain would at once have to descend. Successful engagements by bodies of cavalry are possible. Whether they will, however, be so frequent as to be regarded as a factor influencing the style and mode of battle, can only be taught by experience. We will be partial in our judgment (as every soldier is entitled to be) and say: "German infantry has nothing to fear from the enemy's cavalry; let us see whether our cavalry inspires the enemy's infantry with fear." The shock of the masses of horse will be most effectual in its results on the enemy's flank, where they are both least exposed to fire, and where the stream of the enemy's cavalry that they have thrown into disorder affords them protection against it. If such a wide circuit is impossible, a slanting direction against the front can be recommended as being the best. In very obstinately contested and scattered battles, cavalry may even attack the enemy's front, dashing through its own infantry. Their sudden appearance through the smoke is surprising to a degree. In critical moments, a cavalry charge may be productive of great results, even when it does not succeed; as it interrupts the enemy's fire and renders it possible for the infantry to come close up to the enemy, which was till then impossible. Only the infantry must take advantage of this moment, that so rapidly speeds by, and advance simultaneously with the cavalry, in order to gain ground behind it, instead, as generally happens, of being a

motionless spectator of the exciting scene. The losses will always be great. The cavalry must not fear them, if it thinks of successes in action. Yet these losses entail that the cavalry can only make one really serious attack in a single day. The stake is great; and therefore all the more difficult is the resolution and the choice of the moment.

Safe and important services are rendered by the cavalry against a like arm of the enemy. At the commencement of the action, it must sweep away the enemy's horse from before the front, in order that his position may be ascertained. During the engagement it protects the wings. It may also, seeing that in these days it is capable of fighting on foot, and carries guns, be of valuable assistance by pressing forward, past the enemy's wings, to the roads upon which he is advancing. There it can check the reinforcements which are being hurried up, and bring confusion into the enemy's rear.

When the artillery, as so often happens, advances very boldly and rapidly at the commencement of the action, the cavalry may achieve brilliant results against it. If the enemy's batteries, as was frequently done by the Germans on the 16th and 18th August 1870, support sudden attacks with their fire, the German cavalry will certainly never shrink from an immediate charge, and will, in spite of certain losses, regard them as a welcome booty.

Now we would examine *the influence terrain has upon the action;* but we do not intend to go into details, for they would carry us beyond the end and scope of these sketches. The effect of the terrain upon the battle has diminished in these days, because, as we have already often said, the ultimate success is no longer dependent upon the maintenance of a definite order of battle. Its effect is least in respect of the chief arm. Wherever a man can go, thither an infantry soldier can carry his rifle. Even mountains do not any longer prevent him from fighting. In many cases, the country will, as in the movements of an army in action, be of like influence upon both sides. In a thick wood, or among mountains and rugged country, the defender can just as little employ great masses of troops for the decision of the struggle as can the assailant. But frequently the advantage

of the ground is entirely on one side; and, as the attacker has the choice of the battle-fields, this advantage is generally with him.

The first question is that of roads, so all-important for battle. Next comes the equally important question, how far the terrain is favourable to the effect of our arms, and how far it hinders that of the enemy?

The strength of positions is no longer determined by the hindrances caused by watercourses, valleys, and precipices in front, but by the effect of fire, which is more or less affected by the nature of the ground.

Level eminences with long slopes leading down from them are regarded by us as the strongest positions possible to find, and they are to be preferred to every position upon precipices. In the case of a valley and meadow-land lying between chains of hills or declivities, which is broader than the practical range of artillery, the conditions of the battle are such, that the assailant must send his infantry down to the low ground and make them attack the bank on the other side, without their own batteries being able to support them. The battle will here be very unequal, as the artillery and infantry on the side acting on the defence unite in their operations against the infantry of the attacker.

Such valleys are, in respect of value, much more important than similar ones of such breadth that the defender can, by a lively artillery-fire kept up from the other side, open the approaches to this side. In this second case, it is no longer the ground and the position, but the superiority of the artillery that is decisive. If, by the choice of the battle-field, the energy of one of the enemy's two chief arms can be excluded, whilst we keep ours open, we shall be in possession of an advantage which can scarcely be counteracted by superior numbers. But here also the condition, that the enemy is compelled to attack, by the great interest he has at stake, must be fulfilled. Otherwise, by eluding us, or turning our flank, he will deprive the strong and advantageous positions of their advantage for the defence.

High and commanding points, villages situated on hills, &c., which from afar strike the eye, and which can therefore be readily seen to be strong positions, as keys and supports, have in these days

the very serious disadvantage that, in the most natural way, they attract the enemy's fire. That is exceedingly prejudicial to their defensibility. They are the mark of all the guns and rifles of the attacker, and their garrison, in the place of an expected protection, perceives only a rapid increase in its own losses. Plain, unstriking country, possessing a few advantages, is to be preferred.

Now this leads us to examine the artificial strengthening of positions. Its value cannot be gainsayed, but, all the same, it is conditional. For defence; improvised village redoubts, trenches on high ground, strong barricades, and similar defences, afford the infantry behind them some protection against bullets, and therefore give composure and deliberation to their fire.

But such precautions, again, only excite the attention of the enemy. They cause him to resort to thorough artillery measures, from which he would otherwise, perhaps, in the heat of the conflict, desist. Every mark which catches the eye, is an advantage for the assailant; it facilitates his generalship, makes it possible to estimate ranges with greater exactitude, and thus more than counterbalances the advantage which is afforded the garrison. In ordinary trenches, the losses are heavier than would otherwise be the case, unless they are carefully concealed from the enemy's eye by the colour of the surrounding ground being given them, by their being covéred with turf, corn, or weeds.

Hence in choosing, surveying, and preparing a battle-field, this question must first be considered: how do the *conditions of fire* lie?

Next important are the considerations of a single and undivided command of the troops. If this in the case of part of them is impeded by the nature of the country, for that part there results positive disadvantage. But with this question the nature of the combatant forces is very intimately concerned. If they are accustomed to independence, and if the subordinate commanders have discernment and love of enterprise in them, that disadvantage will be considerably diminished in importance.

Finally, we must also notice that the scattering of the forces, which is necessitated by the country, may exercise a certain influence upon the *behaviour of the troops*. What an unfavourable effect must be produced by a splitting up of the forces—although sometimes demanded by circumstances—into various detachments

all fighting side by side, which detachments are again so independent of each other that the defeat of the one brings the others also into an evil plight, has been already described.

Similarly, every risky dividing up of a troop will make itself felt. But such a situation may often be relatively advantageous in its results. We may remind our readers, at this point, of the well-known historical fact that Field-Marshal Moltke, in his younger days, advised the Turkish general, before the battle of Misib, to draw up his army with its back to the Euphrates.

It furnishes one of the most peculiar instances of a practical treatment of the concrete case in war; for, considering the nature and character of the armies confronting each other, the victory could almost with certainty be foretold for the side that displayed any resistance at all. And this could be most surely calculated upon where the road to flight was barred.* Cortez, likewise, only burnt the ships behind him in order to inspire each of his warriors with the resolution of desperation. The like effect will be produced in every advanced guard that has, after having come through a pass and crossed a river, to engage the whole of the enemy's forces. Here even the simple private soldier understands that retreat is synonymous with destruction, but that the situation will improve every hour with the advent of the main forces of his army. This it is that inspires self-defence with marvellous tenacity and perseverance, whilst the enemy lacks a similar vigorous impulse. It certainly may appear to him what an advantage it would be, could he sweep his adversary into the river he has only just crossed; but his own existence does not depend upon the success of this attempt. Hence the energy with which he aspires to this end is less. It is due to these conditions, as well as to the weakness which a too wide extension of forces entails, that we so rarely hear of successful defences of rivers. The Lower Danube, one of the greatest barriers in existence, has, during the various Russo-Turkish wars, been crossed in the very face of the defending armies more than twenty times.

In intrenched positions, moral effect is also material; it very frequently outweighs material importance. The consciousness of

* As is well known, Field-Marshal Moltke's advice was not followed, and the battle was lost.

being led up against redoubts inspires the soldier with uneasy sensations.* He is afraid of meeting with impediments, as against which all courage is unavailing. The defender is inclined, in his sense of weakness, to exaggerate the reports of the strength of his intrenched position. And in this he finds, as a rule, a welcome support in the uninitiated. Intrenchments arouse interest in the population. When a newspaper reporter can gain an insight into them, he attributes great importance to the discovery, because it is rare ; all the rest he supplies from his lively fancy. Everyone who fought on the Loire will readily recall to mind the descriptions of the intrenched camp of Orleans, of the batteries of ships' guns of heavy calibre, the iron gratings, the wire nets, the double and triple lines, the mines, and other monstrosities, which appeared in the French, and then in German and English newspapers, to such an extent that they were not quite without influence. The moral effect produced by reports of strongly-fortified positions can, therefore, be very well made use of to deter the enemy from an attack upon a particular place. With this object those intrenchments were subsequently made by the Germans on the south side of Orleans; for, considering the weakness of the troops garrisoning them, it could not be seriously intended to defend them, after the army had turned westward.

A happy utilisation of the ground or of intrenchments, can sustain the economy of the forces, which becomes doubly important in carrying through an action. Parts of a strong position are naturally weakly defended, and, by this means, a superfluity of strength can be obtained for purposes other than purely defensive ones. But this economy must not at once be confused with frugality generally. It only requires a clear distinction to be drawn between Unimportant and Important; stinginess for the

* At the northern entrance of the hamlet of Cercottes, the French had erected a very strong barricade, behind a cutting on the main road; and this was during the Battle of Orleans, on the 4th December, the mark of the artillery of the 9th German Army Corps, so much so, that just behind the redoubt the dead lay piled thicker than anywhere else upon the battle-field. On the morning of the 4th December, a fusilier of the Magdeburg Regiment stood there, and, surveying the nicely-made barricade and the ditches on either side, exclaimed to the French corpses that lay around, "Can't you see that all that scratching is of no use?" But this correct conviction only comes to the ordinary soldier after a considerable experience.

first, and liberality for the second. Thus shall we be enabled to proceed with sufficient forces to that act of the engagement, from which we hope for a favourable issue.

The necessity and usefulness of strong reserves is often spoken of. This dogma stands in close relationship to the doctrine of the gradual consumption of the combative forces, and is regarded as unassailable. Hence, even in peace manœuvres, we may frequently see an attack by great masses of infantry, of which only a small portion is in loose order and uses its arms. All the rest follow in close order with drums beating and hurrahs, as though the enemy could thus be driven off. Every reserve represents a dead force.* Soldiers marching up behind the lines of skirmishers, do not inflict any damage upon the enemy, and at most help their side a little by the fact that they, by their proximity, raise the courage of the real combatants. The reserves are only of use when they are brought into action. As the simultaneous employment of all the forces is of the greatest effect, it might even appear to be a mistake to separate reserves off at all. But they are required to meet unexpected emergencies in the battle, which always occur. If the situation is a very uncertain one, so that it is believed many surprises are in store, the reserves will of course be made strong. The safer the situation, and the more exactly the state of things obtaining with the enemy be ascertained, the weaker will they be made. More than this, a situation can be conceived of when it would be correct to have no reserve at all; for instance, when the enemy's strength is exactly known, and has been entirely developed. Such circumstances never, however, occur in reality, and, therefore, we must never fight quite without reserves. But all the same, it is correct to say, that it is not *strong* reserves that are the most practical, but reserves, which harmonise with the situation in which the combatant is. Too strong reserves are not the result of good, but of bad economy. They represent a lavish scattering of the forces, and frequently remain unemployed, whilst they might have achieved a favour-

* We do not mean here those small compact detachments which, at the beginning of an action, are, for a time, kept back in order, as occasion requires, to serve for carrying on the battle, as "feeders," but those larger divisions which the general reserves to himself to employ according to the ideas which strike him during the action.

able issue for the battle. "Generals who keep fresh troops in reserve for the day following the battle, are almost always defeated. If necessary, the very last man must be brought into action, because, on the day following a complete victory, there is no impediment more to surmount; the estimate in which he is held alone assures the victor fresh triumphs." * Though great generals—as, for instance, Napoleon—have been renowned for the clever employment of their strong reserves, yet the praise lavished on them should more correctly have been given to their understanding how to manage well with the means at their disposal. They, with a part of their army, implicated their adversaries' whole forces in a fruitless battle, and then began, with the rest, as well as with a second army they had collected by economising, to carry out their original plan of battle. Here all notion of a reserve vanishes, because, from the outset, a definite task had been imposed upon the troops which had not been at once expended.

All-important in an action *is the smooth co-operation of all the various acts of the execution of the plan.* This sounds quite a matter of course, but, all the same, it is not so, for the history of many modern engagements shows that this has actually been wanting. The artillery were brought up after the infantry had exhausted themselves at an obstacle. Fresh troops were only brought up to decide the day, after the troops in front had been so far used up, that they could be of little or no assistance in the most critical moment about to ensue. The cavalry was called up, when the moment for a charge had already arrived, whereas this ought to have been done when the moment was approaching. Presence of mind has, as a rule, been found less wanting than prudence. This springs from experience, practice, and equanimity, which, even in the hours of the greatest excitement, leaves itself time for mature deliberation. It is, without doubt, difficult to be in repose in the middle of action, to be perfectly engrossed by what is going forward at the moment, and, at the same time, to discern what is coming, to think of what must be done, and to prepare for its being done. Yet this is precisely the task of generalship. We have often, in our campaigns, seen an engagement

* Napoleon I.

as the result of a sudden meeting, that the troops were hurried into action just as they arrived on the field, that the exertions were wasted, and that the losses, owing to want of co-operation, were unnecessarily great; and the experience such a state of things has taught us has not been in vain. *The action of the future will demand more thorough preliminaries, a clearer comprehension of the object to be attained, a more careful arrangement, a more intimate co-operation of all three arms, and the simultaneous employment of all available troops to decide the combat.**

We very frequently hear of the various purpose of the actions, to which a different mode of fighting must, on each occasion, be adapted. Main and subordinate engagements are spoken of, in which the enemy on one occasion shall be annihilated, on another shocked, on the third deceived, and on the fourth checked. Reconnoitre actions also play a *rôle*; in them the enemy is engaged, in order to learn something from him, whereas, properly speaking, information should precede the battle. It would lead us too far, were we in this place to treat of the several phenomena. Tactical text-books treat of the subject sufficiently.

The natural intention, in a battle, is always to annihilate the enemy. Every object in war will be thus most completely attained, even a gain of time. The commander of the rear-guard, whose duty it is to render it possible for a division lying behind to obtain a start, cannot fulfil this task better than by decisively defeating the enemy which is pressing him closely. But, for this, he usually lacks strength. He must, accordingly, endeavour to give the impression that he is very strong; must immediately display the whole of his artillery; must spread out his infantry in order that the enemy may become afraid, may desist from pressing

* The increased energy of infantry-fire, which the introduction of the repeating rifle will bring with it, will probably not cause any radical change in the nature of fighting Such will probably first take place when the discovery of another impelling force has taken the place of gunpowder. The latter, when compared with the modern development of technical science, must be regarded as an antiquated means, that only barely exists because no proper substitute has been yet found for it. That it will be superseded is only a question of time. If an impelling energy could be discovered, which, without loud detonation and smoke, would work upon the projectiles, and was, at the same time, of the necessary energy, great revolutions in the mode of fighting would ensue, which we are, as yet, not capable of estimating.

him hard, and indulge in preparations preliminary to a serious action, which he eludes. An army corps in action, that has been pushed forward against the strong front of a whole army, whilst the commander-in-chief endeavours to attain a favourable issue of the struggle by out-flanking a wing, must not, of course, attack at once with its full energy, because it is, by itself, too weak to achieve any result. It must hold back, cannonade, and deploy its infantry, in order thus to inform the enemy that he had better not stir, otherwise he will be attacked in real earnest. Thus the mode of fighting is in a natural way regulated by the relation the forces bear to the tasks imposed upon them. To order suspensive battles or a mock battle, is a serious matter; for it depends upon the enemy whether the battle can be so conducted or not. Classifications, and the various names given them, are somewhat dangerous, because, under the idea of the practicability of special and less valuable kinds of actions, is concealed the inclination for weak and half measures. An army fights and uses its *weapons* as well at one time as at another. But the final decision we shall only seek when we believe that we have prospect of victory.

10.—*The Battle.*

The most important thing in war is the battle. It forms the crisis whence proceeds the decision of all questions which are at the moment in suspense. It is the sword of Alexander, which cuts the Gordian knot. With each battle, a new epoch in the campaign begins. A single great battle has often solved the whole of the complications, as did that of Königgrätz in 1866.

We know that no tactics can compass victory without a decisive battle. Even the weakest combatant does not lay down his arms to strategical combinations. Whilst perceiving in them superior genius, he will, at the same time, endeavour to rend asunder the web by brute force and to restore the lost equilibrium.

The attacker seeks to bring about the battle, the defender knows that he cannot permanently avoid it, and prepares for it. He expects it, and will desire it at the moment when circumstances render his position more than usually favourable. It is the

sole means by which he can better his position and free himself from being crushed by the attacker. The instance of Daun, at Kolin, teaches us, that on the battle-field the capricious goddess throws at times a rose into the cap of a passive defender, when she has turned away in ill-humour from him who has hitherto been her favourite.

The battle, accordingly, will always be the hinge upon which the circulation of warlike events turns. If at Solferino 160,000 Austrians fought against 150,000 allies; at Gravelotte-St.-Privat, 200,000 Germans against 130,000 French, at Königgrätz 221,000 Prussians against 219,000 Austrians and Saxons, at Leipzig 290,000 allies against 150,000 French, in the battle of the future armies of 300,000, nay, even of 400,000 combatants, will oppose each other. If the Great Continental Powers can place twenty army corps and more into the field, there is no reason for assuming that the major part of them will not be found on the battle-fields, upon which in future the fate of nations will be determined.

What, under such circumstances, will be the appearance of the battle-field; of this even Gravelotte, Königgrätz, and Leipzig give us no complete idea. Not merely the increase in the number of combatants will alter it, but modern weapons, and tactics therefrom resulting, will be of no less influence. The theory of war teaches restricted space and demands narrow fronts, to obtain the proper depth, and with it the proper weight. The practice of war insists irresistibly upon expansion, so as to enable us to bring all the excellent rifles and guns upon the line of battle into action. *Practice* is herein the stronger part, and extended fronts will be the rule. On the 18th August 1870, the front was not too large for the attack, and, on the right wing, more space than troops was wanting. As double the number of combatants may in the future appear on the field, a line double as long will not be improbable. Upon lines of three to four German miles in length, no longer corps will fight, but whole armies side by side.

These great battles will certainly not unfold themselves at the commencement of the war. Seeing that the troops massed confront each other on a long line very closely, there is at first space wanting, wherein to move them forward all together, and to unite them upon one field of battle. On a fortified frontier,

where brushes with the enemy begin to take place all along the line, these will lead to a *number of preliminary engagements between the various army corps.* Only when the final issue is thus postponed, when the breach cannot at once be made, will the extension of the battles increase, because, on both sides, an endeavour is made to withdraw the masses from their momentary complications with the enemy and to concentrate them forcibly upon the critical point. Then, especially when the defender gains time to make a general advance, will in this introductory period the first great decisive battle be fought. If it does not take place here, it will ensue after the breach in the enemy's line of defence has been effected. Whilst this is proceeding, the defender has beyond doubt gained time to bring up all his reinforcements; on the side of the attacker, everything naturally rushes towards the place where the breach is being attempted.

Yet this battle of the nations in the future is for us a Sphinx with unsolved riddles. Technical science busies itself to find new means of increasing the influence of the supreme commanders. If their control over the course of the battle, as it existed at the time of the linear-tactics, could be restored them, the gloomy appearance of the new phenomenon would disappear. The telephone and the telegraph are recommended for the purposes of the general, and the balloon for surveying. The excitement which reigns in a battle, however, makes these things, which are calculated for times of quiet and leisure, appear but ineffectual. Safe means of command are alone those orders which are carried by officers. Even the information the commander-in-chief obtains from the intelligence sent to him, as to the course of the various separate battles which are being fought upon the general battle-field, can during the action be only very small. As we have already stated, it is more in his power to rouse the storm than to guide it when once aroused. One day, a God-inspired genius will appear, who will call this struggle of the future his element, and will control it. But for the present we are face-to-face with a problem. And this is rendered all the more difficult, since no kind of peace-exercises busy themselves with this subject. Even the greatest manœuvres, for economical reasons, confine themselves to the separate operations of an army corps, and this, in comparison with

that which the war brings us, is a very diminutive experiment. The theoretical exercises do not go much farther, as they are intended to teach the principles of warfare on a large scale. A rectification is here necessary. It *is desirable that small armies should manœuvre, and large ones be moved theoretically*—for no master of the art falls from the sky.

A material difference must be made between a battle which often takes place by pure chance, owing to the movements of the hostile armies, and a battle, anterior to which both parties have faced one another for some time, and have been enabled to reconnoitre each other and make plans for carrying it out. Meckel aptly describes this as the "premeditated battle." It lies in the nature of the modern war of movement, in the independence of the separate divisions and their commanders, that this species is the exception, but the accidental battle the rule.

But, generally speaking, in the premeditated battle, the duties of the general are simplified; whilst, on the side of the attacker, they are rendered more difficult; for the enemy also is prepared, and, if he intends to act on the defensive, he has already chosen a favourable position, and, if possible, fortified it. In the accidental battle the duties of the supreme commander are more difficult. He has not had time to make his preparations, and must, accordingly, improvise his movements. He finds a certain situation marked out for him, avails himself of it, and must hastily make weighty resolutions, without being previously able to get much information or any thorough knowledge of the country and the enemy. The soldiers, on their side, have generally an easier time of it. They do not find the enemy in prepared and arranged positions. The advantages of the ground are about equally balanced on either side.*

Let us now follow the course of the *accidental battle.*

The enemy, the evening before, has abandoned his positions,

* Hence results, that the strategical assailant must constantly strive to involve the defender in his movements, and to implicate him in one accidental battle after another. By the name "accidental battle" we do not mean to imply that it must be left to blind chance whether it comes to a decision by arms or not: we only intend to express, in this term, that the moment cannot be exactly predetermined when it shall happen. The resolution to attack the enemy, wherever met with, and however he may shield himself behind a vigorous and strategical defensive, brings about with certainty "accidental battles."

and begun fresh movements, the purport of which we cannot as yet exactly ascertain. We attribute to him the intention to withdraw behind a near line of defence, and hope to anticipate him in his movement. It is possible that we can come up with him before this, but it is not considered probable. Under these auspices, the commander-in-chief issues his orders. A rapid advance is ordered, for haste is imperative. Yet these orders do not exactly speak of a battle. They only express the general intention of catching the enemy. This is quite sufficient for the subordinate commanders. Special preparations relative to intelligence of the enemy and mutual support excite the suspense with which the next day is looked forward to more than usual. The marching columns of the army corps follow. For a time, the march proceeds without any disturbing incident. Now it is imagined, in the ranks, that the enemy has made use of the night in order to gain a start. The first reports of the enemy's proximity arrive. Some shots are at the same time heard. We have met with weak outposts of the enemy, who have rapidly retired and disappeared behind bushes, houses, and trees. It is still once more, only to be soon lively again. The reports come more frequently. Now, not merely intelligence detachments or outposts of the enemy have been discovered, but a column on the march has been perceived, or perhaps even a camp. The opportunity for a grand coup appears to present itself; there is the possibility of separately defeating a part of the enemy's forces, of pressing him back, or even of annihilating him. The commander of the advanced guard has ridden ahead to the cavalry, which holds itself in readiness in a hollow. From the elevation ahead, the enemy can, it is said, be seen. He there meets with the superior cavalry officers, and the chances of the moment are discussed. We are all on the advance; it is well known that the enemy is to be engaged; and the resolution is made that the favourable moment must not be allowed to pass by without being made use of. An orderly officer dashes back with the order that the battery shall precede the advance-guard. But it is already coming up. The chief of the battery had made his survey from an elevated position, and had, on his own responsibility, commanded his guns to pass and go ahead of the infantry, which makes room for it on the road, so far as is necessary. A battery of horse-

artillery has been brought up on the other side. Both are planted in position, and the first shots follow each other rapidly. The enemy is considerably surprised, the trick has decidedly succeeded. The battle-fever, not to say hunting-fever, awakes in the breasts of the assailants. The troops receive orders to quicken their march. The foremost battalion has made grand strides; covered with dust it moves to the attack, its commander at its head. It comes up in the nick of time; for the batteries, which, hitherto covered by the cavalry, had made such splendid practice, have now come within rifle-fire. The general now issues a somewhat general order, to the effect that the battalion shall cover the wing of the artillery, and drive the enemy away. The commander of the battalion, who is but little informed as to what has gone forward, does not care to ask many questions; others do that enough. He sees that his superior officer is somewhat excited, and at all events very much occupied. He tells off his companies, and shows them the direction whence the bullets fly over their heads. A wood, an eminence, or a barn, give him an object that he can readily make for, and this he chooses *faute de mieux* in his haste. The commands are shouted in all manner of language; as a rule, some misunderstanding as to the orders takes place, and occupies all attention and voice. In the meantime, we approach the enemy, and his rifle-fire rattles hotly and unexpectedly about our ears. He has still further strengthened the places upon which we were advancing. Our losses become all at once very great. But there is no time for deliberation. Our only object is to advance quickly, and, in the hot fight, our companies, melting under the heavy fire and broken up into sharp-shooters, sweep forward. With resolute courage they hotly press and drive back the enemy. But he reappears in many places. A battery of the enemy even replies. The battalion next coming up has received orders to protect the other wing of the artillery. Its fate is the same as that of the first, which we have accompanied. The commander of the first regiment, in trepidation, because two of his battalions are separated, whilst hotly engaged, follows with his third battalion one of the two already in action, in order thus, at all events, to keep two together. Soon, the whole infantry of the advance-guard —we assume its constitution to be such as is usual—is involved

in a lively action. The enemy is stronger than we at first supposed. Several batteries on his side are firing.

A movement is visible on the hill, upon which the generals are standing. The general in command comes. At first sight his face seems to wear the expression of disapprobation. But he listens to good reasons, and finally approves of what has been done, as nothing can now be altered. His first care is to ensure the somewhat swaying equilibrium. The general of artillery is at hand, and the main batteries are brought up. They also dash ahead of the infantry. Since a short time, a new phenomenon has manifested itself on the enemy's side. Beyond a wood on the horizon, a pale, grey something rises; it is a matter of dispute whether it is a cloud or dust. Now all doubts are at an end; it is the dust hovering over a great column marching up to the attack. Now the only question is whether it must be taken to be a division or an army corps. The commanding general considers it advisable to inform the nearest army corps of his own army of this fact. Adjutants dash in all directions with short notes in pencil, or with verbal messages.

Now to the commander-in-chief.

He has left his head-quarters of the morning still standing in the old place, in order that work may still be done in the bureaus. Only at mid-day has he arranged for the removal to new head-quarters. With a certain suspense the reports of the march of the morning are awaited; but as yet no battle. And then, all of a sudden, the news is spread that distant cannonading can be heard. It ceases at times, and is then renewed. Frequently, it is uncertain whether the firing is from our own army or from a neighbouring one. A few unemployed officers have mounted the heights surrounding the little town, and, on their return, assure us that they could easily distinguish rifle-fire; the battle appeared to them to attain even greater dimensions, and to be a serious matter. At last an announcement comes. It is the same which was despatched by the advance-guard of the corps in action, when it believed it only saw advanced detachments of the enemy before it. The contents of the message, therefore, speaks of weak detachments of the enemy that have been alarmed, and which are now being pursued. It is only an insig-

nificant battle—such is the interpretation of the message—there is no occasion for fresh measures to be taken. All excitement is calmed down again, all interest lost for a moment. After the lapse of barely an hour, the news arrives, which the commanding general despatched after having personally reconnoitred the positions. It speaks of large masses of the enemy, but cautiously leaves it uncertain whether they are superior in numbers or not, and ends with the communication that the army corps will attack in full force. The scene becomes more serious; the thunder of cannon more lively. An officer belonging to the general staff of another corps, who happened to be in the head-quarters, is despatched with a message to the general commanding his corps, in which the desirability of supporting the troops engaged is pointed out. As yet it is not known whether such a step is necessary or not; but prudence, at all events, enjoins that preparations should be made for this object. An officer of the *ober-kommando* dashes off to the scene of conflict. Shortly after, the din of battle becomes louder. It has not got more distant. The horses are now sent for on all sides; the march into the new head-quarters is abandoned. Further intelligence from the field of battle is altogether wanting—always a significant sign. After a lengthened pause an orderly arrives. But he does not come from the corps under fire, but from a corps that has not yet been engaged. It announces that it has abandoned its prescribed line of march in order to dash with its full strength to the battle-field, where assistance appears to be urgently wanted, and that all other available troops have also been informed. The word "battle-field" produces a great effect.

The field-marshal rapidly dashes off in the direction whence the cannonading is heard. After some time, he comes up with troops. In serious silence they are marching quickly towards the battle-field. Each man collects all his strength for what is coming. The sight of the commander-in-chief and his suite first breaks the silence. A loud hurrah from the ranks. Soon the first wounded are met with; then a troop of prisoners, frequently under a very large escort, as though it were intended to bring in these first results of the battle quite safely. A longer train follows, and the number of wounded also increases. From the nearest heights

columns on the march wind downwards, all bound for the battle-field. Now we turn aside from the main road into a valley leading up to the battle-field. The signs of a serious battle in our immediate proximity are unmistakable. More prisoners meet us. On both sides of the road surgical tents are pitched; field-hospitals and ambulance columns are busy. Wounded are brought to them in great masses. Trains halt under protection, thickly crowded together in the open. Ammunition columns are called for, and are sought for by officers, who dash in wild haste from the battle-field. The dull sound of the cannon and the rattle of the rifle-fire are blended together into one uniform and unbroken roar. Above the wooded hills on our right the enemy's shells and shrapnels are bursting, their white puffs of smoke stand out sharply against the sky. Hurrahs greet the arrivals on all sides; it is scarcely possible to have the situation explained to us even in a few words by a higher officer, who is wounded, they are only with difficulty understood.

A few minutes more, and the small knot of horsemen halts on the hill upon which, a few hours before, the batteries that opened the battle were planted. The great number of dead and wounded shows us how serious the battle has here been. We have advanced somewhat, but not very far. The picture of the battle-field unrolls itself to the eyes of the commander-in-chief. Long lines of artillery face and cannonade each other. Thin lines of smoke, drifting across the slope of the heights held by the enemy, denote the chains of the enemy's skirmishers. They surge forward at this point, and backwards at that. Now and then, compact bodies of troops are seen cowering in the folds and hollows of the ground. On the side of the enemy, masses of troops are moving behind the front. Dust, and the smoke of powder and burning farms, lies thickly over the battle-field, and does not permit of the object of the moment being clearly distinguished. At a still greater distance, compact masses are descried. The wings cannot be seen in their entirety, but the ring of their fire announces that they extend further than the horizon. A general, brought up for the purpose, gives the commander-in-chief information as to the course events have hitherto taken, so far as they have come to his knowledge.

No doubt now; what lies before us is no engagement, but a decisive battle.

In such a situation, the field-marshal who first arrives at a fixed and determinate plan for the further conduct of the struggle, will obtain the ascendency on the field. This is not so easy as it sounds to anyone who does not know what war is. The commander-in-chief is, on the spur of the moment, compelled to give a number of decisions relative to the details of the action. Here, a body of troops advances to the attack, without any connection with the rest, and must be kept back; there, another regiment is retiring from an important position, and needs support. A third begs for reinforcements; a fourth announces want of ammunition, and a fifth that its flanks are threatened. The cavalry commander asks whether he shall dash into the infantry battle, as he considers the right moment has arrived. The general of artillery wishes to change his position, and wants to know whether this is in harmony with the intentions of the commander-in-chief. With many such, and even less important, questions, is the field-marshal plied, and, among all these numerous details, he runs the risk of losing sight of the direction that he must give to the action generally. In order to be safe in this respect, he stands in need of that great resolution that subjects to itself all details, and round which, all orders and commands are so grouped that they are closely allied in respect of the one main object. Thus, all the numerous forces assembled on the battle-field are sent upon a common direction, and all strive together towards this one end. Their joint and harmonious co-operation will be of effect as soon as the enemy's forces are void of harmonious working, and the enemy's general vacillates between details. The great predominance of a God-inspired general over merely a good experienced general will be most plainly seen just here. The former may, perhaps, go wrong in trifling matters, may, on some occasions, give a body of men faulty instructions, but soon he will arrive at a large and comprehensive decision. "Le bon général ordinaire," as the French style him, gives, perhaps, to each battalion, each battery, and each cavalry regiment, most admirable instructions touching their several duties in the battle, but they are all without any internal connection. All the troops do their work excellently in the sphere assigned to them, but the one to the right, and the other to the left. If the discipline of intelligence in the army is

not admirable, so that, through it, and without any interference of the supreme command, a unity of action is arrived at, a waste of energy unavoidably ensues.

If the campaign has been practically and safely opened, the plan of the battle develops itself immediately out of the ideas which determine the previous movements of the armies. It is well-known* that in the year 1870 the plan of operation for all the armies at the commencement of the war was "to push the French towards the north and cut them off from their communications with Paris." Now, on the 16th August 1870, at Vionville, a situation occurred similar to my sketch above. On the advance upon the Meuse, we expected a battle, yet, only on arriving on this river—not far from it, at all events—and on the 17th August, not on the 16th; for it was believed that the French, whom we had thrown back upon Metz, must in the ensuing night and on the 15th have obtained a great start.

But on the 16th August, the 3rd Army Corps, marching on the right wing of the IInd Army, came upon the enemy. The French, in consequence of unnecessary loss of time, were as yet much nearer Metz than could have been supposed. The battle was the result of this meeting. The general in command, in obedience to the principle followed by all German armies, decided to attack, but, in so doing, to advance with his left wing, in order thus to face round towards Metz and to throw himself across the main road between the enemy and Verdun. In this way, the enemy was to be blockaded and cut off from his retreat towards the west, that is, from "his connection with Paris." But he was stronger than was assumed; by degrees, his superior numbers began to make themselves felt. In the afternoon, the army corps, after a severe struggle, only retained the advantages it had won in the morning. The Commander-in-chief, Prince Frederic Charles, turning the leading strategical idea into a tactical one, likewise determined to block the way of the enemy: the 3rd Army Corps should assert itself where it stood; the 10th, that the field-marshal knew to be coming up on the left wing, was told off to attack the enemy's right, in order thus, if possible, to drive the French completely back upon Metz. When it appeared that the available forces were

* *The Franco-German War*, published by the General Staff, i. p. 73.

insufficient for this purpose,* but that the superior numbers of the French threatened to crush them, there came to the aid of the first resolution a second, namely, by ceaseless and successive offensive shocks, small as were the resources, to deceive the enemy as to our weakness. Many an experienced soldier in the battalions that had melted away into little bodies, whose energies were exhausted, as was their ammunition, will have shaken his head when the orders came to advance again and again and to leave the enemy no rest. How serious must not the well-disciplined cavalry officers have looked, when at nightfall their squadrons were again led up to the attack, in which they perceived no definite and clear purpose and object. And yet these measures were the only correct ones. Particularly were they so in their connection with the intention to deceive the enemy, and to attract his attention to such an extent, that he was neither conscious of his own strength, nor conscious, moreover, that his whole safety depended upon his forcing his retreat to the west, cost what it would. The fact is, the "bon général ordinaire" on the French side, was confronted on the German side by a great soldier. The latter understood how to control the ideas of his opponent, and thus to deprive the strength of the enemy's forces of its full effect. So is the problem solved how it came about, that on this day, this turning-point in the course of the war against the Empire, 120,000 French were unable to defeat 60,000 Germans.† In battle, the truth of the old rule is proved; viz. that each side fears the other. He who most speedily overcomes this sensation and makes himself morally master of the situation, will eventually be the victor; for, above all, forces are placed there which work upon the feelings, and fill them either with fear and anxiety or with pride and confidence.

Now it is by no means indisputable that the plan conceived by the field-marshal is the best that could on all occasions be possibly devised. If the whole situation could be reconsidered in a study at home, a better one could in many cases be found. But any practical plan is sufficient; only it must be unswervingly adhered

* Parts of the 10th Army Corps had been already engaged in the battles of the 3rd, without this having at once come to the knowledge of the commander-in-chief.

† As to what these figures import we must remind our readers of Clausewitz's saying.

to, and even each most insignificant order calculated to advance it, until the intuition of the commander-in-chief devises a better. In the dispositions, which vary according to circumstances, only the principles that are applicable to every battle are to be followed.

The case is different with the *premeditated battle.*

The troops have concentrated, in obedience to higher orders. In preliminary engagements, the outposts of the enemy have been driven back upon a first chain of rifle-trenches and villages, artificially arranged for defence, where stronger detachments support them. The armies have now come within close touch of each other. They stand face to face, like two combatants with crossed swords. One is still engaged in hastily strengthening his lines; the other is awaiting the last divisions of the army, which, though still at a distance, are coming up in forced marches. All is at length ready. Outposts have throughout the whole day been standing in uninterrupted contact with each other. It was very difficult to suppress the resulting infantry engagements, so as not to allow the battle to burst forth prematurely. At night, the extensive reflection of fire in the sky shows us that the enemy is in our proximity. The generals move their head-quarters to the front. They spend the previous night in one of their camps. Everyone feels that the decisive day has arrived, and makes his preparations accordingly. Each side knows the other, to a certain extent, so far as general strength goes. The main forces are certainly carefully kept back and concealed as well as possible. However, each attempts to guess how they are distributed. And then the orders for the battle are given; which, in consequence of the constant friction between the two armies, has at length become unavoidable. The leading plan has been laid, before it commences. It is in harmony with the result of previous reconnoitring, exhaustive consultations with a small knot of distinguished men, and long labour. Here it must also be assumed to be natural, that it is in logical connection with the general views and intentions respecting the conduct of the whole war. And we may presuppose preparations, generally practical preparations, where generalship is intelligently conducted. Accordingly, when the forces are correctly calculated, and the troops brave, a favourable

issue ought properly to be assured. But the main point lies in quite a different place.

No battle takes exactly the course that has been planned. Each has its surprises, and takes a course somewhat different to what has been intended. And then the measures originally intended are for the most part no longer practical. Thus it is the affair of the supreme commander to discover the moment when he must deviate from what has been preconcerted and betake himself to improvisation, and when it shall abandon what would be theoretically correct in order to do what proves itself to be practically advantageous at the moment. That is difficult; it is not easy to give up a plan, which has been before made in the fancy, as to the course the battle will take. The engagement at Saalfeld, on the 10th October 1806, furnishes an example as to how dangerous it is to definitely sketch out what is coming. Prince Louis Ferdinand stood, on the 9th October, at Rudolstadt, when he received orders to march, on the following day, as soon as he was detached from the advance-guard of the Prussian main army, by way of Neustadt to Prince Hohenlohe, who intended to assemble his whole army* in a position at Mittel-Poelitz.†

Now in those days no straight road led through the hills from Rudolstadt to Neustadt; but a detour had to be made by way of Saalfeld, and the bridge over the Saale utilised at this latter place. The French were already very close to this bridge. If they succeeded in seizing it, the Prince was cut off from Hohenlohe. Thus, he acted quite correctly in advancing on the morning of the 10th October to Saalfeld. He acted quite as correctly in halting there, because the advance-guard of the main army had not yet arrived, and he must wait for it. The remarkable position at Saalfeld, which has been vehemently attacked as being an indiscretion, was a natural result and was perfectly justified.‡

But the Prince had unfortunately buried himself so deeply in fantastical plans as to the future, that, at the critical moment, he could not emancipate himself from them. His heart was quite full of the desire to ward off the first shock of the French bril-

* Prince Louis Ferdinand was at the head of an advance-guard 9,000 strong.

† This intention was abandoned on the 9th, but the order to the Prince had unfortunately not been revoked at the proper time.

‡ Saving the impracticability of tactical details.

liantly; meanwhile, before arriving at the defile, the heads of his main army should come up, and he should then march off to his army at Mittel-Poellnitz.

If the whole matter had taken this preconcerted course, it would have been really a brilliant stroke. But the French took good care not to come rashly out of the wooded hills and attack him. From the heights they surveyed the Prince's position and the weakness of his forces. They surrounded him on the heights in such a way as to first of all turn his right wing, cut off all outlet, and then to press him with superior forces back upon the Saale. Now the moment had arrived for Louis Ferdinand to perceive that that which he expected would not happen, and that he must abandon his preconcerted plan, so as to pass through Saalfeld on to the other bank, or retire to Rudolstadt. Only by so doing could he have escaped the danger. But he was no longer a free agent; he was too deeply imbued with his previously-adopted opinion. The moment passed away; his army was shattered, and he himself fell, and carried with him into his grave the fair hopes of his country. His example is a warning not to go into a preconcerted battle with fixed and stereotyped ideas as to the course it will take.

The battle of the 18th August 1870—two days after Vionville—was a preconcerted one. But it also took a different course from what had been intended. The right wing of the enemy was not where it was assumed to be. Our intention, not to make a serious attack upon the front until that wing was turned, collapsed, owing to the fact that the 9th Army Corps became too deeply involved in a decisive struggle. In this case, partly owing to the generalship displayed by the highest authorities, and partly to that of subordinate commanders, a suitable change in the old plan was made. A general and more determined onslaught was made in front, whilst the outflanking operations were extended more widely in a northerly direction. Thus the original object was attained by a new way. In the preconcerted battle, accordingly, it is essential that the general should carefully consider and prepare the execution of a first leading idea, but should not, whilst so doing, lose his unrestrainedness in observing the real course of events. Rapidity of resolve is less demanded here, and but seldom at the very beginning of the active operations.

An accidental battle, and a premeditated battle, accordingly, put the genius of the general to various tests, and this genius may prove its mastery in the one, without necessarily asserting it in the other.

The latest great battles have been decided by an outflanking attack upon a wing. The same idea is therein expressed as underlay Frederick the Great's attacks with his oblique order of battle, a formation which ought to begin all actions. We do not intend to attack the whole of the enemy's army with the mass of our army, but only a part of it. As the attacker is generally victorious, when he only shows himself to be the stronger at a single point, this intention is the correct one. All kinds of attack will bring them to expression in one or the other form. Only we must no longer in these modern times, as was formerly done in the last century, leave that part of the enemy's army that we will not attack quite unemployed. It will be necessary to attack it with determination, in order to check him. The mobility of troops, and the independence of the individual leaders, has become so great, that it can no longer be expected of one half of an army on the defensive that it should look calmly on, whilst the other half was being defeated. Both must have something to do. The demonstrations, the feigned attacks, by which this end was formerly attempted to be attained, and by which it was actually attained, are based upon very antiquated notions. They will, as a rule, fall short of their object. The development of engagements lasts too long, intelligence duties have become too lively, and military perspicuity in leadership generally is too far advanced to allow a long life to deceptions attained by such weak means. The preliminary actions, which fill the first act of a battle, must be of a uniform and serious character, if they are to induce the enemy to make a blunder. The arm that here plays the chief *rôle* is the artillery. A vigorous artillery-fire, maintained by the attacker, may just as well be a preliminary to a decisive attack by infantry, as the means of concealing and enabling movements made to other points. The views that the defender forms as to the situation, and upon which depends whether he adopts right or wrong measures, will frequently not spring from the impression, which the whole picture

of the battle makes upon him, but upon other circumstances. The strategical position, the enemy's habits, incidents, news obtained previously, considerations of retreat, and the communications with the other divisions of the army, all play a part. To these factors must be added a calculation of probability made in a condition of excitement, the result of which, even in a clever man, may easily be an error.

Meantime, preparations for the decisive struggle are completed by the attacker. Withdrawn from their adversary's eye by the nature of the country, or from his notice by the battle raging before him, the masses move in the direction in which it is the intention to bring the matter to an issue. The smoke of powder that covers the field, and the din of the battle, are the allies of a determined attacker; they help him to approach the enemy's position without being seen. In the future, the object of attack will also be, for the most part, the wing or flank of the enemy, for there superiority can be best attained. But in comparison with 1870, a material change is imminent. Many times then, was the day decided by a flank attack executed by a comparatively small fraction of the army. That, in the future, will be utterly impossible. The defender will have learnt to strengthen his wings, and to secure his flanks, by making good use of his reserves. There is no longer any chance of being able, in the outflanking movement, to fall upon a thin, weak flank, and thus to roll up the enemy's line of battle. There will rather result a hot front action in another shape. All the same, a disadvantage for the defender will be produced. He is compelled to fight his battle upon a field where he had not prepared for it. Besides, he must bring up from a great distance a part of those forces that he can still employ. The attacker has anticipated him in his resolve, and in his measures. But, all the same, it is necessary for the attacker to show himself on his opponent's wing and flank, not with fractions, but with the mass of the army. If, hitherto, three, four, or five corps have held the front of the defender in check, and one, or half a one, outflanked him, in the future, the minority will have to be employed for the first, and the majority for the second task. The *rôles* must be changed.

That is easier said than done. First of all, the small number

of the army corps advancing against the defender's front will most frequently be hard pressed. It has to deal with a considerable superiority of numbers. Over the movements of the attacker to turn the flank, there hangs the fatality of a counter-offensive taken by the adversary. Even though this is an operation difficult of performance, yet the attacking general will, all the same, fear it from his opponent, and so see the firmness of his resolve put to the test.

Then, again, it is difficult to move the great masses which execute the outflanking operation within a definite space, without bringing them into confusion. Everything must be performed with the precision of clockwork. Here there will be an opportunity, more frequently occurring than in the late wars, of showing cleverness and experience in moving considerable compact bodies at once. In this respect we have not escaped a certain monotony. We have only regarded as possible that which is most convenient, and, as such, the rule to be observed in war, viz. the forward moment of an army corps in the ordinary narrow marching column formation of a depth of three miles (German). When, on the morning of the 18th August 1870, Prince Frederick Charles ordered his army to make a digression, there were many voices raised, declaring this to be impracticable. It found many censurers after the campaign. It was, in fact, the first case of an innovation, the employment of which will finally be approved by the future. The army, six army corps and two divisions of cavalry strong, lay in the morning with its front upon the road leading by Mars la Tour to Verdun, Rezonville before the right wing, and Hannonville-au-Passage before the left, in all $1\frac{1}{2}$ miles (German) in extent. It was to advance thence to the north, in order to wheel to the right or to the left as circumstances demanded. As yet it was doubtful upon which side the enemy would be found before it. The advance might be one or might be two miles in length; as a matter of fact, in the case of the left wing, it extended more than three miles. The commander-in-chief saw, beforehand, that if the army corps, all combined in their bivouacs, should, first of all, have to fall into marching columns, and then have again to deploy from this formation into order of battle, the day would pass by, and a considerable part of the troops would not come into action at

all. He, therefore, ordered: "The advance shall be made, not in long columns, but in massed divisions, the corps artillery between the divisions." Though this order was not executed by all the different parts of the army, though interruptions and frictions occurred owing to mistakes, yet it is due to it that the whole IInd German Army was available for action upon the battle-field, which was partly three miles distant. It only was criticised because it ran counter to the gospel of the necessity of having thin marching columns for every great movement. Correct as it is in general, yet we must not shun exceptions. They will be very numerous in, and immediately preceding, the great battles of the future. Frederick, on the morning of the 6th May 1757, after a night march, assembled 65,000 men in close order upon the heights of Prosik near Prague, facing to the Austrian position. He then marched with the whole of this mass 1½ German miles, in close order again, through a country not less difficult than that through which the army of Prince Frederick Charles had, on the 18th August 1870, to move to the left, and deployed up to mid-day with all its strength to make a decisive attack upon the enemy's right that had been turned. Napoleon often advanced in the morning, with forces considerably more than an army corps, in a single direction, and has fought at mid-day with his whole strength, after having covered a good march. The old Prussian peace tactics even understood how to march 20, 25, 30 battalions great distances in close order, and to bring them simultaneously upon the same point. All that will be again necessary. Shortening the columns by broadening them, the movement of the artillery and cavalry *upon*, and the infantry *alongside* of the roads, and the forward advance of deployed masses, as was intended on the 18th August, will, in the future, alone make it possible in many cases to concentrate the numerous forces within the given time upon the point where the decision is expected. An extraordinary case is before us, and extraordinary measures must be resorted to. Upon the broader roads, marching can be done even in double column, and the depth of a division be shortened by a half, and that of an army corps, by one and a half German miles. The veil of night can also be advantageous for the attacker; it withdraws his preparations from the scrutinising gaze of his opponent, and allows his

positions to be approached, which by daylight would entail considerable loss. But no means must be left untried of shortening the distance to be covered when attacking under the enemy's fire, not so much to avoid losses as to allow the strength and energy of the army to be weakened as little as possible before the final blow. It was on the morning of the 1st September 1870, the second day of the battle of Noisseville, when the news was brought that the French had attempted to storm at night the villages that, on the 30th August, had been the objects of fighting, and on that occasion Prince Frederick Charles first stated that we should often in the future have to resort to taking at night places well situated and strongly fortified, which, by modern fire, are rendered almost impregnable so long as it is light, and then hold them by day. At all events, the assistance of the night enhances the time that is, as a rule, too short for the preparations for the battle. It is a matter of course that all these violent measures in moving troops are only resorted to where they are urgently wanted; for they harass the troops and consume part of their vigour, the whole of which is necessary. Battles lasting several days will seldom be without night movements.

The deciding action upon wing and flank must be brought into proper harmony with the advance against the defender's front. Considering the great dimensions armies have now attained, and the many authorities all working side by side, success is only possible where the formation of an order of battle has been securely and carefully made. The decisive blow must not, however, follow close upon the preliminary actions, in order that time may be given to the defender to commit blunders. But it must not be too long deferred, because otherwise the want of serious intentions in the preliminary actions will be perceived, and these lose their importance. A quarter of an hour too much or too little may be of the greatest importance, and determine the issue of the battle. When the moment for the decision is considered to have arrived, it must be quickly sought, in order to deprive the enemy of the time requisite for making a change of front. And care must also be taken that, when the deciding struggle commences on a wing, the battle does not flag, but is renewed with energy.

The general must banish the fear that, by making an outflanking attack upon the battle-field, he cuts himself more off from his natural retreat than he would do by outflanking movements before the battle, otherwise his resolve and his action will both suffer from weakness. All his thoughts must be directed ahead. *He who fights the enemy who is before him with his full force secures his line of retreat best.* The battle controls all else to such an extent, that all doubts causing a diminution of energy in carrying out the plan of battle must be silent. Good generalship, in arranging the masses for the deciding blow, will never ask what relation they bear to their natural line of retreat, but only in what direction can they put forth their forces with the greatest rapidity and to the greatest effect. It never occurred to anyone in the German army, at the moment of action, that on the 18th August 1870 we were fighting a great battle with reversed front, and that, in our outflanking attack upon the French right, we had completely cut ourselves off from the communications we had hitherto maintained. All attention was centred forwards in the victory, and not backwards in retreat. Thence it was that the attack drew its great strength. Thus must it always be.

In describing a battle we have involuntarily described an offensive battle. What German soldier would do aught else? But love of order compels us also to speak of a defensive battle.

The attacker shuns the front. It is the strength of the defender, of which he must be conscious. If he has arranged it in such a manner, that the country before him is everywhere within range of a vigorous fire, he must here, at all events for one day's battle, be able almost to do without his reserves. As he must be aware that the enemy will seek a second battle-field on the wing or in the flank, he must keep them there in readiness.

The flanks are the Achilles' heel of the defender. But, as a rule, the general position will show the flank to be the part most, if not exclusively, threatened. All available reserves are given to it. Moreover, the utmost care must be taken that defence is not confounded with inactive standing still. There is contained in the notion of the "defensive" a leaden weight, that fetters the ideas and resolves of the leaders.

In the battles of modern times, the attempt has almost always been

made to protect the threatened wing, when the critical moment draws near, against being outflanked, by lengthening the position. But when the attacker spread further out, it was surrounded all the same, became weak and weaker, and was at last rolled up.

It appears to be much safer to protect the wings by movable bodies which are not rooted to the ground, and which are commissioned to prevent the enemy, by opposing themselves to him, from carrying out his outflanking operations.

During the battle on the Lisaine, on the German side, four kilometres in advance of the right wing of the defending army, an independent division was pushed forward, and on the 16th January 1871, early in the morning, it received orders to attack the flank of the attacker. The French foiled this intention by moving thither with their masses. But the thought of such a kind of resistance is, and remains, an instance of value. It is comparable with the plan of a battle which was expected but did not come off. At the beginning of the war of 1870, the IInd Army at Marnheim chose a battle-field upon which it intended to receive the French, in case they prematurely took the offensive. Four corps were to form the front; one each on the right and left wing were to manœuvre to protect the flanks, and one serve as a general reserve. *The more volatile the defender, the less he feels himself bound to the first position he has chosen, and the stronger will he be. Motion and activity develop in war to a source of strength.*

The defender, in the same way as in movements, will also, on the battle-field, by taking the offensive from his front, be able to foil the attempts of his opponent to outflank him. There certainly is wanting much resolution, great perspicuity, and the right choice of the moment; for this counter-blow generally leads into a circle of fire. Yet what is difficult is not, on that account, impossible. Let us conceive, on the 18th August 1870, the French Guards ready in reserve behind the right French wing, instead of behind the left, and a Bonaparte on the heights of St. Privat; then, in the moment when the attack by the Prussian Guard had come to a stop, and the outflanking by the Saxons had not as yet been perfected, a counter-attack on the part of the defender on St. Marie aux Chênes against the thinned and exhausted battalions might have ended in a great success.

Yet it is erroneous to deduce from this, as is often done, a reason against outflanking operations in general. The "Umfassungssucht" (desire to outflank) is often censured without a thought that it is in these days a natural operation to endeavour in battle to gain the enemy's flank. It is, besides, the internal nature of our army. A body of troops meets with the enemy, deploys, cannot penetrate his ranks, and maintains a constant action. The next comes up and perceives that on this tack it cannot at all, or only with difficulty, make its way. Its commander has been trained to independence, to take the initiative, and to act according to his own ideas. He accordingly seeks his own plan, upon which he hopes to make his way more easily and quickly. Thus results a gradual feeling for the enemy's flank; a more and more extended outflanking. But the instances of Noisseville, Beaune, la Rolande, Beaugency, la Lisaine, and others, prove what little prospect of success a purely front attack has. We arrive at the same conviction when, in those great battles which have been decided by an outflanking movement, the situation has been studied up to the moment when the outflanking was effected. Spicheren, Wörth, St. Privat, &c., prove that an attack on the front is a very disastrous but an unsuccessful struggle, by which the day would not have been decided.

The effect of the fire of weapons of precision decides the victory, but nothing favours it more than the outflanking, which catches the enemy in the narrow space of the battle-field in the centre, surrounds him, and exposes him to the effect of a cross-fire. An encircling battle, like that of Sedan, displays this annihilating effect in the highest degree. Colonel Blume rightly concludes his treatise upon Defensive and Offensive (Vertheidigung und Angriff) with the words: "In the outflanking and simultaneous advance of all our forces against the front and flank of the enemy, lies the best guarantee for the ascendency of the attack over the defence."

Too weak outflanking attacks will, in the future, certainly fall short of their mark; strong ones, by an adroit onslaught of independent bodies of troops thrown beyond the wings of the position, or by reserves stationed behind the wings of the defender, can be foiled; and imprudent ones punished by an effectual counter-attack. But, on that account, outflanking, and attempts in this direction,

must not be rejected on principle. If our troops were by system and training to be dragged against the front of their adversaries, as has been recommended by assiduous writers, we should, instead of victories, have defeats to chronicle. The ardent opponents of outflanking movements, besides their fear of dispersing the forces and the confusion of companies, are animated by the confused idea that, after a great war there must be a tactical revolution in all respects. To this idea must be ascribed the absurd phenomenon that is often observed, namely, that after brilliant campaigns the victor begins to cultivate the errors of the vanquished, and to neglect his own good points. The opposite of what has proved its excellence is adopted, merely because it is the opposite. The side that has by a free development of individualities instanced great strength, begins to attempt to restrict the independence of the individual; he who by the unfettered practicability of his generalship has always attained well-timed action, resorts subsequently to schemes and forms; he who by a regardless employment of his forces conquered, now preaches the art of avoiding losses. He who has learnt in active war that his cavalry could only play a subordinate *rôle*, places for the future his hopes upon great cavalry attacks; he who sees the enemy entrench himself, tired and worn out, now recommends that the spade be taken energetically in the hand. Every, even the best matter has its disadvantages; And these are clung to by the "innovators whose sole aim is to innovate," and so they jump from the frying-pan into the fire. Or they think they perceive in everything that fails, the starting-point for new energies that only need arousing, as well as the guarantee of future successes. In their uneasy desires they lose the ingenuousness and impartiality of their judgment. Such are the authors of the perverse and artificial theories of war, which are always followed by reverses.

Great wars, as a rule, will bring about changes in warfare; but such must not be intentionally sought after. They arise of natural necessity from simple causes. In an outflanking attack we must only look for the *most effectual*, and not the *sole* means to victory. Cases will occur where outflanking is excluded by natural or artificial hindrances. Entrenched positions between "sperr-forts" (a chain of forts) are always such as cannot be

outflanked, and thus they must be taken. The attack in front may, under certain circumstances, be indispensable. But it is not said that we are forced to attack the whole front with equal intensity. By thus doing, the first principle of all generalship, which is to bring the mass of the forces to bear upon a decisive point, would from the first have been broken. He who shows himself *equally strong* at all points, is at the same time *equally weak* at all points. Hence the grand attack must only be made upon a wing, whilst the front is kept well occupied—that is, attacked with lesser forces, as here a decisive success can be dispensed with. It will be seldom possible, before the battle, to concentrate the troops which are to deal the decisive blow in front of the wing chosen for this purpose, without its being perceived by the enemy. This will, as a rule, have to be done during the battle. The artillery attack, which prepares the way for the onslaught, conceals by its smoke the movements which are being completed behind it. The concentration of troops for the main blow must not take place before the numerous batteries lying before the enemy's front are in full play. The attention of the enemy will be more engaged the closer to him the troops drawn up before his front advance. The easier will the impression be made upon him that the battle, which is really only intended to withdraw his attention from the threatened point, is the deciding one. But the danger for the troops engaged in this feigned attack is thereby increased. They can be reached by the enemy. He can throw an unintentional seriousness into this front engagement by resorting, on his side, to counter-attacks. The remedy recommended to the attacker in such a case, namely, to make the troops pressing on in front resort to the spade, in order to entrench themselves in the face of the enemy, and to present a firm barrier to his attempts, is in so far dangerous as the enemy soon perceives in such precautions that a decisive attack is never meant; but it must, all the same, not be rejected. A repetition of it may even be necessary, until the troops have advanced close enough to be able to deal the final blow without the troops having too great a distance to cover in making it.

Mobility, in the case of an attack upon a wing, will do the defender the same service as in the case of outflanking operations against him. If he realises the situation quickly enough, he can

frequently and effectually answer by breaking forward on the non-threatened wing, thus rolling up the forces diametrically opposed to him, and bringing the enemy's main forces, which are concentrating, to a standstill, and throwing them into confusion. He may, perchance, in a similar manner, upon the threatened wing play a paralysing attack, and the success will then be a thorough one. But there is need of great weight and great resolution, as in the case of the counter move-against an outflanking attack.

The attack upon a wing, if successful, will in the further course of the engagement generally become an outflanking one; for the tendency to roll up the enemy is quite as natural as is the tendency of the defeated wing to seek for protection and consolidation with the centre. Thus the side acting on the offensive gains room for the outflanking operation, which at first failed him.

The attack upon the wing will, therefore, occur in the wars of the future more frequently than the attack upon the centre. The latter, the consequence of which, in case it succeeds, is penetration of the enemy's lines and his discomfiture, has a hard struggle with the natural strength of a front line of defence. As we advance we shall become more and more outflanked by our opponent, which, considering the great range of our modern weapons, means more than it did in the days of Napoleon. In any case the penetration must be made with a proper breadth, the enemy's wings being kept sufficiently employed. The "wedge" which is driven into the enemy's position, does not suit this kind of attack, as the thin edge of it would be torn in all directions by the fire of the defence, and be speedily annihilated.

In order to penetrate, many and good troops are indispensable, as well as an iron will which does not shrink from great bloodshed. It will not in the future resemble an attack, but more a gradual working through the enemy's lines, interrupted by pauses, and then again undertaken by fresh troops. In this operation, every step gained must be secured during the pauses by earthworks, so that position advances equally against position. Great front-actions will in the future all be of a similar character, and last several days. The losses that will be caused thereby can be easily calculated. Episodes like those from the 14th to the 18th August 1870 may be readily added to by many more.

But the greater the crisis, the more important must the success be for him who fortunately overcomes it. In spite of the sacrifices which it demands, the great deciding-battle must, in the future as hitherto, be aimed at; and there is no greater wisdom in war than to set all physical and moral force upon bringing it to a successful issue. With the triumph upon the battle-field the triumph upon the whole theatre of war is assured. All doubtful matters are at once decided, and we are masters of the situation.

11.—*Pursuit; Utilisation of the Victory; Retreat.*

That both attacker and defender are often obliged during the battle to separate themselves with the mass of their army from their natural lines of retreat, is of less significance than a false theory of war would often have us believe. Especially in these modern times does the great mobility of armies permit of the ways of safety being regained without much difficulty. To be cut off from the lines of retreat is only serious, when the reverse is followed by an immediate pursuit on the part of the victor.

This *immediate pursuit* has not only in the late wars been almost always abandoned from motives of experience, but it lies in the nature of the modern battle that it will as a rule be so abandoned.

The vast dimensions of the fields of battle, the breaking up of the whole struggle into a number of actions and engagements, the distance separating friend from foe, owing to modern weapons of precision, impede a survey of the whole to such an extent, that on the evening of the decisive day, the field-marshal will only but rarely be able to perceive what has been the general issue of the struggle. The fear, by beginning the pursuit too soon, of bringing about a reaction, and in the endeavour to increase the victory of letting it slip from our hands, will make itself on each occasion felt. Much is gained, if the field of battle is abandoned with the secure feeling that a victory has been gained. The retreat of the defeated side first clears up the situation.

And so under ordinary circumstances the day after the battle will dawn before everything can be perceived clearly enough as to enable the supreme authorities to issue fresh orders. And then it is too late for a hot pursuit. And, again, the supreme command is alone qualified to order a pursuit from the battle-field.

Every battle entails extreme excitement, and an extreme exercise of all the intellectual and physical forces. *A state of exhaustion accordingly follows of natural necessity.* After a victory, moreover, there is a feeling that further sacrifices are purposeless, or that they would not be sufficiently recompensed by the successes they would attain.

Of the bodies of troops standing side by side in a line of battle, each separate body will, as a rule, await the initiative for pursuit from another, even though it perceives full well the necessity for it. Each one is, as has already been shown, readily inclined to believe that it has hitherto sustained the greatest part of the common toil and borne the brunt of the day. Each considers its own danger to have been the greatest.

The form of the outflanking attack, moreover, in case it succeeds, brings it about that the troops converging upon one point become more and more confused together. The most various regiments become mixed up like the coloured glass in a kaleidoscope. And this is all the more so in proportion as the troops show themselves braver and more successful in their onslaught, and advance further. At the close of a battle, to see compact bodies of troops drawn up in the first rank, all expectant of the word of command, is a rarity. Fresh troops, who have not yet been engaged, will only in exceptional cases come up at the right moment. Those lying farther back, on the other hand, see too little to be able to pursue.

On that account, after most of the great battles of the last wars, we find no immediate pursuit from the battle-field.

The last instances of brilliant pursuits undertaken straight away from the battle-field all date from the Napoleonic times. The times of Frederick are poor in them. After Mollwitz, Hohenfriedberg and Czaslau, the pursuit was abandoned; after Rossbach and Leuthen it took place, but not, according to our ideas, to a sufficient extent. The opponents of the Great King let him escape from Kolin, from Hochkirch, and Kunersdof. This was partly due to the clumsiness of the order of battle, which only saw in a compact army a body that should be employed as a whole, and the whole of the forces could only with difficulty be set in motion in pursuit. The fault was partly due to the whole conception of the science of war.

The consequences of rapid action in war were not considered as they are to-day; the warriors of those days were not convinced of the great importance of a rapid and logical sequence of each and all of the operations; they gave themselves up to chivalrous nonchalance and treated the whole matter, in spite of the very bloody battles that occurred at long intervals, not with the same bitter business-like seriousness which characterises our day.

Clausewitz says: "In the former wars, which were undertaken upon a smaller scale, and which were circumscribed by narrow limits, there arose in many points, and more especially in this of pursuit, an unnecessary conventional narrowness. The idea and the honour of victory appeared to the commanders to be so far the chief thing, that they thought less of the actual annihilation of the enemy's forces, seeing that this annihilation appeared to them to be only one of the many measures in the hand of war, and even then not its chief, let alone its sole, measure. All the readier were they to sheath their sword as soon as their adversary had lowered his. Nothing appeared to them to be more natural than to stop the battle as soon as it was decided, all further bloodshed appearing to them superfluous cruelty. If this false philosophy did not constitute the whole decision, it still established the point of view under which the idea of the exhaustion of all the forces and the physical impossibility of continuing the battle was readily entertained and they exercised great influence."

The case was different under Napoleon, when the war made use of its natural powers, when the independence of the several divisions of the army and their commanders increased, and the Emperor aimed at annihilating his adversaries. Restless pursuit completed his victories. His *chef d'œuvre* in this respect was in the year 1806; for the advance to Lübeck, and, on the other side, to the banks of the Vistula, was nothing but a chase after flying wrecks of armies. No one learnt so much of him in this respect as his bitter adversary, Blücher, whom he had chased without mercy as far as Lübeck. He paid him back richly for the injustice meted out to him. The pursuit after the battle on the Katzbach is worthy to compare with the best performances of Napoleon; and a peculiar freak of chance it is, that the Emperor's last battle, Waterloo, became an annihilating defeat for him because Blücher under-

stood how to follow up the victory immediately by an incessant pursuit.

But we must not forget that in that period war had shaken off its former fetters, whilst the equipment of the troops remained the same. The battles were fought at short distances. When, in our days, the victorious infantry, after having heavily suffered, breaks in storm into the enemy's position, it seldom finds more left of him but dead and wounded, whom he has left behind him. Only the fire poured upon it from afar, from a range of hills, a wood, or a village, and the activity displayed by the enemy's artillery in covering the retreat, shows in what direction he has disappeared. In villages the troops come to close quarters, but the scenes of slaughter enacted there only affect a small portion of the troops.

Even in these modern days, the pursuit can only be carried on by men and horses. But the fire of the enemy's artillery that hinders the pursuit, reaches three times as far as formerly. The space that has to be covered before the defeated enemy can be caught up is three times as great as formerly. So long as we are able from our original positions to reach the enemy with our fire, we do not move, so as first to utilise its effect to the fullest extent. This circumstance, the looser order of all infantry, and the confusion of the outflanking attacks, explain how it came about that at Königgrätz the defeated army could partly escape over the bridge of Pardubitz by making a flank march three miles long, as also the fact that after the great battles of 1870–71 hot pursuit was abandoned.

But we cannot fail to perceive that another cause has exercised its influence to prevent the success of a battle from being immediately realised. In the late wars, we carried out with assiduity the great operations, which the supreme commanders ordered in order to attain their objects. Their strategical ideas were realised at Metz, at Sedan and Paris, to their fullest extent, and led to the most unusual successes. Yet our mode of waging war was distinguished by a trait of dignified self-conscious serenity, and there was a lack of all passionateness, such as characterises Napoleon's conduct after his victories. There was hatred there, and this brought it about that his victories were so inexorably

realised. The destructive impulse, which worked like a demon in the heart of the greatest generals, and impelled them to engage personally in the fray, carried pursuit to an extreme pitch. They will return when our mode of warfare gains in passion, and when, at the same time, the old circumspection remains more in the background. In the late wars, at decisive moments when more might have been done, humanity awoke in us the feeling, "Enough has been attained." If we place hatred and love of destruction in the place of those emotions, though in the future brilliant and immediate pursuits may be rare, it will not be the rule that they are not indulged in.

Blücher's order after the battle on the Katzbach runs: "It is not enough to be victorious, we must also know how to turn the victory to account. If we do not press the enemy at close quarters, he will, of course, rally, and we shall have to attain by a fresh battle what we can gain in this one if we act with energy." The nature and value of the pursuit are here both aptly described. Never can laurels be more easily plucked than after a victorious battle, when the enemy, overcome by the feeling of weakness for the moment, gives up all resistance, in order to save what may still be saved.

But this feeling will certainly not fill the breasts of the retreating combatants after every episode which we call "victory." We Germans must have beaten a retreat homewards, perfectly broken and disheartened, if we should have had that emotion which is demanded by the rules of the art of war after every engagement, which in French descriptions of the war is called a "*victoire.*" Between a victory and a victory there is often a great difference, although we are accustomed to associate the mere word always with the same idea. We want another Bülow to find for us names denoting the various steps which lie between the simple beating off the enemy and his annihilation. Frequently, we have only *persuaded* the enemy to leave the place of battle, not compelled him, and yet, according to old usage, it is rightly said we have been victorious. After such victories a pursuit would, as a rule, only mean a renewal of the deadly struggle.

The test is how deeply the feeling of having been defeated has spread in the retiring army. Only when it has got down to the

private soldier does pursuit promise the enemy good results. Even Napoleon could not, in his accustomed way, follow up the enemy after the battle of Gross-Goerschen, or even after that of Bautzen, although he had been victorious.

Pursuit is only possible after self-evident victories.

But even in this case special precautions must be taken. Written orders to pursue, such as was the practice during the last war, will usually be without effect. The general who has issued them returns to his head-quarters, whilst the orderlies ride off into the darkness of the night. They have to search for some time before they find the *General Kommandos*, which are, after the confusion of the battle, hard to discover. The general in command discharges his duty to his utmost by sending a fresh order to the foremost of his divisions. Another orderly must undertake a night ride. When morning dawns, the document has reached the advance guard. It with difficulty has got together some wood and provisions, and is preparing to cook, and must now, without delay, go in pursuit. But the now somewhat old-dated order weakens its effect. The only immediate effect generally is that the outpost squadrons are aroused earlier than was originally intended, and are launched forward against the enemy. They ride to the nearest entrenchment, where they are checked by the enemy's stragglers, by ruined bridges, or other impediments.

The main body follows after; its arrival beats down the resistance. The most favourable result is that a regular day's march forward has been made, and then a halt. The enemy's stragglers have certainly been caught, and a certain amount of booty taken, but a destructive pursuit has not taken place.

This is no fanciful description, but a picture such as was often repeated in the last war.

Only a passionate love of war animates the pursuit properly. Personal interference is necessary, and personal interference, too, on the part of the supreme commander immediately after the battle has ended. Only when he in person leads the fresh battalions kept in reserve, or the squadrons of horse, on to the pursuit, accompanies and controls them late into the night, can any considerable result be with certainty looked for.

We know the motives which lend to defeated troops a marching

capacity which is often not expected of them. Like motives are absent in the case of the victor; with him, the impelling energy must come from above, otherwise the fleeing enemy will never be caught.

Only when the forces have been properly husbanded, and the victory was not too difficult to attain, are means of pursuit at hand. They must all be held in readiness towards the end of the battle. The general who has been kept constantly occupied by the urgency of the cares of the moment, will easily overlook this point. A proposal has been lately made to commission a high officer of the general staff to make these preparations during the battle, similar to a recommendation made as to arranging the intelligence duties. That will certainly be practical. But as that officer cannot, of course, be entrusted with the disposition of bodies of troops, it follows that his advice will only be of service when it has been accepted and sanctioned by the field-marshal. The latter is the lever of all the machinery of the pursuit. The cavalry especially must be brought into play. Its commanders are, in the pursuit, the right-hand men of the field-marshal. It can be more easily made their duty to intervene here independently, if no orders have been given from high quarters. If, during the battle, success on their part be, as often in these days, encountered by very serious impediments, these frequently disappear after the battle. The energy and discipline of the enemy's infantry has been broken, its ammunition exhausted. The necessity of following in the general retreat, soon compels them to relinquish, for a time, the safe cover they had found. Great cavalry attacks upon the retiring hosts can here effect very important results. But the enemy's artillery, which is covering the retreat, must also be crushed. Numerous batteries must follow the retreat. The horse-artillery of the cavalry divisions which are halting behind the line of battle will, generally, be brought into action. It is accordingly necessary to detach them, and supply them with ammunition, or to make a number of other batteries available. All these measures must be thought of beforehand, or their execution will be too late.

The infantry is already pressing the enemy closely, but it is broken up, and is hard to control. If there are a few compact bodies close by, they will only but very rarely hold long together, and so form

greater entireties, which always work with enhanced effect. However, rapidity is here worth more than great strength, and the moment has arrived in which we ought not to hesitate to employ those of the available troops nearest at hand, without any question as to where they belong; they must be taken wherever and however they can be got.

If the enemy is being pursued upon a single road, he can always block it, if he has only a few troops capable of fighting. It is accordingly necessary to begin the pursuit at once, in proper breadth.

Realisation of the victory, and *utilisation* of it must work hand in hand.

If the late wars were poor in really first-rate pursuits direct from the battle-field, yet the victories were, in each and every case, turned to advantage. This assumed another form. It consisted in great and new operations, undertaken immediately following on the battle just over. Its result was entered at once in the strategical problem as a factor of the whole, and a new sum was begun. The consequences did not follow so rapidly as those of an immediate chase after the enemy, but they went further. They will always be of greater importance. Though the fruits to be gathered immediately following the battle-field escape the victor, yet he secures a richer booty, which arises for him from the altered proportion of energy in the strategical situation. Such are the successes which he can now assure himself by freer motion, enhanced self-confidence, a consciousness of superiority, and by definiteness of resolve. The following morning may pass by without being made use of, provided that the following evening brings an energetic resumption of operations, directed towards new aims and ends.

The best instance of turning a victory to account in this manner, is shown by the 19th August 1870, the day after the decisive struggle of Gravelotte-St. Privat. There, too, the first hours passed by without a complete survey of what had happened being attained. A pursuit would for a long time have been impossible, even if the close proximity of the fortress had not excluded it. But about mid-day fresh orders were issued, which no longer dealt with the immediate consequences of the battle, but with the distant future. One portion of the army was told off to shut up the defeated enemy

in Metz; another was, without delay, set in motion towards the West; a new army was formed, an independent military authority appointed, and furnished with all the departments necessary for the administration and command. Not a single day was lost in furthering the grand object of the war. This certainly was the best way to derive results from the victory just gained.

A victor can, immediately after a battle, think of his great interests. He possesses at that moment the greatest independence of the will of the enemy, so as with unimpeded energy to be able to follow up the aims he has set before him. Such a happy situation, as soon as realised, must not remain for a single hour without being turned to account. The moment following a victorious battle, in which, so great the joy over the success gained, it is easily forgotten, that in a war the future always possesses more rights than does the past, is the very moment in which the supreme military authority should display the most extreme energy. By firing salutes to "Victoria," and celebrating grateful religious ceremonies on the day following a battle, many a general has lost the fruits of the victory he has just celebrated.

The vanquished is in quite a different position. He sees himself compelled for the while to drop all consideration of his great interests, in order, before all else, to think of his safety. Therein lies, at that moment, his most sensitive weakness. Retreat for him means abandoning the object he has had in view in the war, means looking for safety.* Under the protection of his artillery, the vanquished opponent has abandoned the battle-field. A numerous and first-rate cavalry that he can now launch upon the enemy, may, as at Gross-Goerschen, lighten his first heavy steps.

Everything depends upon putting distance between ourselves and the victor, in order that the latter may not constantly press us. We know that strong rear-guards with many batteries are the best means of obtaining a start. But the enemy is our superior, and but seldom can anything be obtained from him by force. We must accordingly have recourse to deception wherever there is an opportunity for it. The "eccentric" retreat, that has often been

* Of course, we must not include here a voluntary retirement in order to wait for more favourable circumstances. We are here speaking principally of a forced retreat.

censured as a radical fault, is the best means for this purpose. If the enemy does not clearly see in which direction he must make his most vigorous pursuit, it will soonest flag. He will be baffled; the fact that intelligence comes simultaneously from different directions, makes it much harder to unravel than would be the case, were the pursuer to have the retiring enemy before him on only a single road. It is a matter of history, that the great Army of the Loire, after the second battle of Orleans in December 1870, executed an "eccentric" retreat. After the victors had cut into this army, and had taken Orleans, they found the enemy before them to the south, in the direction of Vierzon; prisoners of the French 15th, 16th, and 18th Corps were brought in thither. But the enemy was also met with down the Loire near Beaugency, and it was heard that his 15th, 16th, and 17th Corps had retired thither, and that they had, moreover, been reinforced. Up the Loire close to Gien, the enemy was met with in still stronger numbers, and soldiers of the 15th, 16th, 18th, and 20th Army Corps of the Republic were come up with. So it appeared as though all the various divisions of the enemy's army had become mixed up together, and thus it was most certainly hard to answer the question in what direction the pursuit should be undertaken. In spite of their victory, the situation of the Germans was not without difficulty. The original intention to advance to Bourges and Nevers was abandoned, as soon as the resistance, which General Chanzy offered at Beaugency, was more obstinate than was at first supposed would be the case. But thus General Bourbaki escaped being attacked, and was soon after able with his reinforced army to move off to the East of France.

The "eccentric" retreat brings the retiring troops upon a number of roads, and facilitates their escape. Certainly it always suffers from one inconvenience. The battle has just before proved that the united masses were not a match for the enemy. And now they are separated. A successful resistance, then, is inconceivable. But it very frequently happens that we do not wish to fight during retreat, and that the retiring army desires to avoid all battle. *The united forces are then not required*, and all advantages of separation can with full right be utilised. Their later re-union, as soon as the enemy desists from the pursuit, must always be

kept in view. General d'Aurelle de Paladines, who had ordered the "eccentric" retreat at Orleans, also planned to unite his whole army again on the Sauldre. He could certainly not have effected it there, but he could possibly have done it behind the Cher or the Indre. Only his recall prevented him. Frederick the Great also made oftentimes use of the "eccentric" retreat; once in the year 1757, although not successfully.

Only when we expect to fight on the retreat, is it necessary to keep our forces together.

But by retiring in one direction it will also be possible to deceive the pursuer. Positions to the side of the roads may direct him thither, and cause him to deploy in a wrong direction, and much time will be thus gained, which is the essence of every plan of retreat. Long-range weapons facilitate such-like attempts. A rain of projectiles pelting upon him from a great distance may induce the enemy to stop or to advance in force, whilst the force that has caused his dismay has time to move off. Flank positions of all kinds can be turned to account, and so enable the retiring combatant to gain time, if he is only adroit and enterprising.

The first direction taken by a line of retreat is, as a rule, a forced one. The defeated army chooses the roads upon which it can more easily escape from the enemy. The first necessity is collection and arranging. As soon as the general has gained the control over the backward surging masses, he will guide them from an enforced into a natural line of retreat. *This latter leads him back to the nearest reinforcements, or to the nearest protection afforded by a redoubt or a fortress.* The troops must be halted as soon as possible; *for before all else it is long retreats which ruin defeated armies.* A short one is seldom accompanied by great losses; the lapse of time, the exhaustion and despondency, the inevitable concomitants of continued retreat, give into the victor's hand guns, prisoners, and baggage.

In the case of the vanquished, therefore, everything depends upon allowing considerations of personal safety to drop as soon as possible, and upon the following up of general purposes. A successful engagement, be it only of subordinate importance, will soonest bring about the turning point. A success of arms alone wipes out the impression of defeat. The defeated combatant, as

soon as he again feels himself strong enough, must seek to compass such a success. It depends here much less upon the battle being combined with the great objects of the war, than upon its being a victory at any price. It is now justifiable to disregard, for once, the generally acknowledged principles, to turn away from the enemy's main army and to address ourselves to a subordinate division, merely because we hope to defeat him. Thus did Frederick the Great act in August 1757, when he left the Austrian main army at Zittau to be watched by the faint-hearted Bevern, whilst he himself turned against the less important and active enemy, the imperial army and the French. He sought the tactical success where he could most easily obtain it, less for the fruits it might bear him, than for its moral impression.

Nothing must be left undone to reanimate the sunken moral energies of the retreating army. On the retreat, the influence of the general and the influence of the whole corps of officers can best prove itself. It applies the severest test to this army, or to any army in the world. We easily over-estimate its value, as long as everything proceeds favourably, and ascribe to its excellence what we should attribute to fortunate circumstances. Perseverance, energy, courage, and greatness on the part of the individual; discipline, bravery and serviceability on the part of the whole, can prove themselves in their true light after a disaster. Then it is that natures which owe their importance to the general favour of circumstances, are distinguished from those which evolve from their own selves energy, counsel, and resolve.

12.—*Connection and Sequence in Evolutions and Battle. The Law of Necessity.*

In the inexorable consecutiveness of strategical operations of evolutions and battles, lies, as can be perceived from what has been said about pursuit, the greatest strength. It was this that dismayed our enemies most in the last campaigns. The "apish rapidity of the Prussians in 1866" was a great and martial virtue. In war there must be no holidays. Napoleon I.'s campaigns of 1806 and 1814, and our generalship in the years 1866 and 1870, are patterns of connection and sequence as yet

unequalled. The rapid repetition of blows considerably increases their weight; for each one is not merely of momentary effect, but its after-effects last a considerable time. Only whilst it is rolling, does the avalanche increase and gain in weight. That is also the fate of military success.

The unbroken continuance of the operations demands great intellectual energy on the part of the general. We must remember, that whilst the war lasts there is for him not an hour of rest, not one in which the responsibility weighing upon his shoulders slumbers. The night is as the day, and forms no exception.

The critical spectator is readily inclined to pass judgment upon all hesitation. He follows the operations only in thought, without having himself actually to take part in the battles which they entail, and without feeling the many exciting and disquieting doubts. The proverb, "Strike whilst the iron 's hot," is likewise a principle of war. But passionate energy on the part of the general is indispensable for keeping the military operations perpetually going; there is required that impulse of Alexander, neither to allow himself nor the enemy at any time any rest, always to strive after greatness, and never after enjoyment. Of modern captains, it was before all others Napoleon who was animated by a perpetually impelling impatience. A diplomatist rightly said of him: the world would have no peace unless he could be made to sleep fourteen hours a day. It is well known how much he personally could achieve. He passed half the day in the saddle or in his carriage, made all his dispositions for his great army, and then dictated to his adjutant ten, twelve, fourteen, or more long letters,* a labour which, as a rule, is alone sufficient to keep a rapid writer fully employed. "I am in most excellent health; I have become stouter since I left," he wrote to the Empress Josephine on the 13th October 1806, at two in the morning, from Gera, "and yet I manage to do ten or twelve miles† a day on horseback, and in my carriage. I lie down at eight, and get up again at midnight; I often think that you have not then as yet retired to rest." Such restlessness on the part of the general

* The correspondence of 30th September 1806 contains seventeen, and partly very long numbers.

† "Vingt à vingt-cinq lieues."

is the first condition for the connection and rapidity of the military operations.

It is most necessary at the beginning of a war. It then deals the paralysing blows; and if the enemy be once robbed of his senses, it is only necessary to see that he does not come to himself again, in order to be master of him. "This moment is the most important of the whole campaign. The Prussians do not expect what we are about to do. They are undone if they delay and lose a single day," Napoleon wrote, on the 8th October 1806, to Murat, on commencing the operations. And he did not rest from that time until the Prussian armies were destroyed, and he stood on the banks of the Vistula. Only the natural extreme limit of physical strength may cry "hold." This limit is not reached as soon as is ordinarily supposed; both men and horses can endure much. No one ought to forget, that a blow dealt at the right time with the remaining energy may often spare the exertions of a whole campaign and years of bloodshed. Nothing that can be done to-day must, in war, be put off until to-morrow.

But troops also must labour on uninterruptedly, and they are not merely harassed by bodily fatigue, but, after a long epoch of martial exertions, by that internal weariness, also, that deprives them of all desire for action, and gradually pervades all grades and ranks down to the simple private soldier.

An army which has passed through a number of battle-fields has lost its bravest officers and soldiers. Death reaps its harvest always among the best men. They rush forward, and are the first to be carried away by the bullet. They also succumb to disease; for he who is voluntarily active and energetic, and always ready to undergo perils and toils, will sooner exhaust his strength and sooner exceed the measures of his powers, than will he who lags behind and is inclined to spare himself. Then the internal quality of the troops in a severe war gradually sinks. It must not be compared with a magnet, whose energy increases by use. Only experience and external dexterity increase—exertion and privations of all kinds, fatiguing marches, and wet nights in bivouac are readily endured for a short time, but not for months together. They damp martial ardour considerably. A few specially constituted natures escape the effect of such circumstances, but not so

the mass of men, from whom the theory of war must draw its conclusions.

He who does not know war, easily shuts his eyes to this circumstance. In imagination he makes the "veterans" advance from one battle-field to another, sees them entwine one laurel-wreath after another around their temples. Yet it is impossible to remain always a hero with the same resignation, when battle is an every-day occurrence, when danger cloys owing to its familiarity, when we go on foot through miry roads and sleep on wet grass. Dirt is a dangerous enemy of all enthusiasm. Ideal and real are far removed from each other in war. The poetical fancies of the novice are not realised. What he sees accomplish itself in his soaring visions, in reality takes a very tiresome course, and is terribly sober to look upon.

The actions and engagements, of the thrilling scenes of which he dreams, take place in times of excessive exertion, which crushes the soul, and scarcely permits it to be conscious of the great moment. Exhaustion from fatigue so takes possession of all the senses, that they are insusceptible of any impression. Military history tells us how that, on the retreat from Jena to Prenzlau, old grenadiers placed their muskets against each others breasts and fired, so as not to be obliged to march further. If the sufferings of war overcome the fear of death, how is it possible that they will not subdue the enthusiasm of the inexperienced? From the mouth of those returned from their first campaign we have often heard the exclamation, "We are one illusion poorer than we were."

Even though the young man may perchance go into his first battle full of burning ardour, when military life, entwined by the garland of romance, lies as yet unknown before him, though he yearn for dangers and adventures, though he may suppress all sobering effects, yet time at length gains the day. All is changed, when two or three, or ten and twelve, battles and engagements lie behind him. Then his yearning after adventures is quieted down. He has reaped a store of glory and honour. He is then satisfied with having gained recollections for his whole life, and has a feeling of self-congratulation that he has done his duty in the hour of peril. Involuntarily does the wish arise in the breast to bring all this with him happily back home. At the close of a war that one has been

luckily passed through unscathed, no one would care more to die for the Fatherland. The generals, too, have a well-acquired amount of military credit to keep; it is natural if they are less daring and less rash than when they first stretched out their hands to grasp their first laurels.

In the year 1870–71, it was said that "an army can triumph itself to death." This sounds paradoxical, but is yet true. *The great majority of men are at last tired of the war, be it ever so successful.* Civilised nations are soon sick of an exceptional state of things, like a war, that destroys their peaceful development. Hence it was that the ancients were afraid of the barbarians, because an interruption of their ordinary mode of life never made the same deep impression upon them.

If this is felt when the war takes a favourable course, how much quicker will the feeling of the entire exhaustion of martial ardour come over those that have to endure reverses and retreats.

And yet the connection of military operations must not be interrupted. If this is to be the case, the general must exercise an enormous influence upon his army.* All higher commanders must display great tenacity, and a conscious hardness of heart, and a deeply-rooted sense of duty must animate the masses. For great achievements, the first condition is, that a man of authority evinces the courage to demand them of his troops. *Military history teaches us, that those who dare to demand something extraordinary, are fewer than those who perform extraordinary achievements when they are demanded of them.* The connection of the military action is, like the pursuit, placed into the commander-in-chief's hand.

The *sequence* must spring from judgment. It may very well be brought into the operations by a counsellor of the general. As a rule, it will result from the *law of necessity*, which in these days controls the course of the war. It is not concealed from the unbiassed mind. The great armies of the present, press, in their

* This, besides being based upon the natural influence of a certain person, is based to a considerable extent upon knowledge of the troops. This circumstance, so often overlooked, is concerned whenever officers exercise influence upon soldiers. It is a depressing feeling for the subordinate not to be known; every order is sure of being carried out better, when the executant knows that he is personally known to those who give the order. Personal knowledge of each other is accordingly a good bond of union between commanders and troops.

mobilised state, with such weight upon the life of nations, that the most rapid release from this pressure is a law of self-preservation. Each of the struggling sides has a certain aim in view, which being attained, will guarantee it peace. Upon this the whole gravity of the whole armed force must be directed, in order to reach it in the soonest possible time. Now it cannot, it is true, go straight for it in a direct line. The incidents of war cause digressions. Each new situation is, at the same time, a new embarrassment, which must be got over most advantageously and quickly. The overcoming of this obstacle leads, of course, to a change of measures on the part of the adversary, and thus there arises the immediate necessity for spontaneous action. Whilst we are advancing, pressing the enemy, surrounding and attacking him, we are ever imposing upon ourselves fresh tasks. This restlessly advancing process must never be interrupted, save by the external compulsion of circumstances. A day idly and unprofitably spent, means at least a loss of millions of money. But it is also indispensable that generalship should always bear its great objects in mind, and should, of the numerous shifts to which it must daily betake itself, resort to none that do not further this end as much as possible.

It is advantageous when in any, even the most insignificant, engagement, the attack or the repulse of an attack is made in the direction in which, bearing the general strategical situations in mind, we intend to drive our adversary. If it be merely a matter of a battalion or squadron, yet the way to the final aim is facilitated, though it be by only a little; whilst a bloody battle may be without this effect, if it lacks internal connection with the general scheme of the campaign.

SECTION V.

RESOLVE, FIRMNESS, INITIATIVE, INDEPENDENCE, AND ARBITRARINESS.

The principles, that in war fighting is everything, and that after a victory a hot pursuit must be made, in order to turn it to account, that in pressing forward no interruption should be allowed, and similar matters, can be presumed to be already known in the military world. Everyone knows these things.

If, all the same, they are not observed, this is due, in the first place, to a weakness of purpose, which does not carry out what it considers right. In camp life, a right appreciation is only the first step towards solving the problems, whilst, in the peace manœuvres, nothing more is frequently demanded than this appreciation. The overcoming of purely personal difficulties, the resistance of subordinates, and the influence of illustrious counsellors, do not permit of many a good resolve being carried into effect, but cause it only to be replaced by a worse. The frictions created by the movement of the troops and the influence of the enemy, often cause even this to be discarded.

But other circumstances are also involved. There are men who set themselves with the greatest energy to work to carry out a plan they have formed, but who, all the same, are difficult of *resolve*. For the ordinary man, it is not easy, especially when he hears other opinions, to be quite clear as to what *he himself intends*. Foreign matter, of course, is mixed up with it, because the mind is accustomed to dependence. The same quality is, for another reason, frequently peculiar to clever people. Their mind lacks a certain

contentedness; they make too great demands upon conditions precedent. They want to take the offensive, but the preparations for it do not appear to them sufficient. They mean to fight, but they draw in their minds a definite picture of the grouping of the forces preceding the battle. But circumstances, when they arrive, never are quite as favourable as has been wished, and then the resolve to try their luck even under the *more unfavourable* conditions fails them. Critical circumstances make each individual case always appear an exceptional one, in which the well-known principles cannot be applied. We must make clear to ourselves, that the ideal in war will never be attained, that what we desire is never fulfilled as we would have it, that things always take another form to what we thought they would, and that we must accordingly always be ready to take the most momentous decisions, even under conditions only half favourable to us.

Resolve needs not only strength of character, but also a certain practical insight into the imperfection of all human achievements. We must be content with attaining our object, even though it is not attained in the way we hoped. No one will, in his life, be happy in the way which his youthful fancy painted to him as being the sole way of bliss. Sufficient if it happens in any other way.

Contentment furthers the resolve.

This resolve will be best explained by a simple, candid, and practical putting of questions. Those men of Jena, when they had to go against the French, asked themselves "Which position best suits the demands of science?" And they hit upon ideal positions, the discovery of which might, perhaps, have been a good problem for a reconnoitring tour, but which was valueless, because their discovery did not tally with the military situation in question. What will the enemy do? What must, in any given case, hurt him most? What are we to do? This is the proper line of thought in every resolve. Whether that which is allowed to be the most harmful to the enemy is something scientific or not, is perfectly immaterial. We must not try to force the fulfilment of our favourite ideas. Tacticians and strategists, who wish to apply their ideals in every case, are very dangerous leaders. Most dangerous are they when they crystalise their scientific convictions into systems. In war there is no saving truth which alone is the

door of bliss; everything may be right, and everything may be wrong, as soon as special circumstances render it so.

But in its zeal to inflict damage upon the enemy, resolve must not strive after the unattainable, but in its ventures go to the extreme limit of the permissible. *In war, nothing sensible must be considered impossible as long as it has not been attempted; and we may dare everything we believe we can carry out.*

Very frequently the time will be wanting for a regular putting of questions. Sometimes the excitement does not permit it. Resolve is then something instinctive. During the battles and engagements, actions are the product rather of an immediate inspiration of the moment than of a conscious labour of the brain. We marvel at the capacity of being able to hit just the right thing with such sudden ideas, and call it genius, or military intuition, or tact. It is the faculty of being able to penetrate at a glance a whole situation and all its details.

What is meritorious in all instinctive action is the moral courage to obey such impulses. And yet we have reason enough to place confidence in them. There is expressed in them the totality of insight, experience, knowledge, and strength of character, an unconscious result of all intellectual and moral forces. The soldier's spirit within us asserts its presence with sovereign freedom, and finds its way more certainly than does deliberation, which, by exteriors, can be reduced to false conclusions. Such sudden decisions need no explanation, and frequently bear but ill the justification which history would fain give for the sake of embellishment. The example of great captains instructs us on this point. Frederick the Great, after the event, would fain attribute his much admired resolve to attack the left wing of the Austrians at Leuthen to quite trivial reasons, so that, were we to believe him, all that we most admire would vanish. But the truth of the matter is, that, under the impression which the view of the enemy made upon him, and without any systematic process of thought, he penetrated the whole situation at a glance. Seldom does subsequent pondering better the original resolve. It is but a creation of the moment, in which the whole productive capacity of the man has come to full expression. Shakespeare speaks of the "native hue" of resolution. He knew that it was not an assumed hue.

The danger which threatens the original resolve from the side of subsequent fears, renders it necessary to take some precautions to maintain it. In the giving of orders, everything must be carefully avoided that can subsequently make it waver. All half-measures are on that account ruinous, because they partly follow the resolve, and partly the scruples and doubts which militate against it.

Frequently, purely external moments are important. He who takes up a position, in order to fight a decisive battle from it, never dares occupy a place lying in front of it with stronger forces; for, in case these latter are hard pressed by the enemy, the doubt will arise whether the original resolve shall be adhered to and the troops sacrificed, or the resolve abandoned and the troops rescued. A weak garrison would have enabled this to be avoided. The fate of a few companies will exercise no great effect upon the resolutions of the general. The fate of a regiment or a brigade may perhaps do so. The sole, ever comprehensible reason for keeping together the forces, is that the general can thus least of all come into conflict with himself. He who does not send out any division of his army to act independently, does not run the risk of being led astray in his intentions by arbitrary actions on its part. It must, then, be recommended to persons of weak character and little perspicuity, to keep everything close together.

The sharpest test of a resolve is afforded by an *unexpected* action occurring during the movements. Even an expected one can lead it astray owing to the force of impressions, and it is not at all necessary that it run counter to our interests. An instructive instance of this may be seen in the action of Villersexel of the 9th of January 1871. The resolution of General von Werder before Vesoul, taken with perfect definiteness and with correct estimate of the conditions with which he had to contend, was, to bring the French, as soon as they attempted to march by him along the Oignon upon Belfort, to a standstill, by making an advance with a part of his troops upon Villersexel, whilst the mass hurried to the Lisaine to block their way there. Matters developed quite in accordance with this programme. The French came; Villersexel was found to be strongly occupied by German patrols in the night of the 9th of January. The 4th Reserve Division of Werder's Army Corps advanced thither; their advance-

guard drove the enemy the next morning out of the little town and took 500 prisoners. Everything went off as well as possible, and according to desire. General Von Werder perceived from the heights of Aillevans the increase of the enemy's forces opposite to Villersexel; the object in view, namely, to check them and to force them to deploy out of the line of march towards the East, appeared to have been attained.* This, according to the original resolve, was the time for marching off behind the Lisaine. Instead of this, we see how that in the evening, and during the night, the whole army corps was assembled and drawn together towards the battle-field, and, on the 10th of January, early in the morning, was drawn up even by Aillevans and Longevelle, in the vicinity of Villersexel. In was here shown what an attraction an action exercises even upon generalship with fixed and sure aims; and we have already hinted that, as a fact, the tactical decision, when it is once on foot, should, without question, advance into the foreground. Exceptional cases, like the one before us, which are doomed to be abandoned by considerations of the relation of the forces,† are very rare and difficult to perceive. The question, whether we are justified in giving up, for the sake of greater interests, a battle which has been half carried through, is hard to answer. It will be all the more painful to do it, as we must confess to ourselves that the enemy, even when we voluntarily break off the battle and retire, always claims, and with a certain show of right, the honour of a victory. Here, accordingly, the *firmness* of the general goes through a crisis.

If this can happen when events are propitious, how much more will it not be the case when they are unwished for. Involuntarily we are forced from our path. There is, however, then a way of

* As a matter of fact the French intended to march up at Villersexel with their front facing north, in order to attack General Von Werder at Vesoul by outflanking his left wing.

† The cogent reason which might have induced General Von Werder to break off the battle and to march away, did not lie in the fact that he had once proposed to fight on the Lisaine; for the chief thing was that the enemy should be beaten off, not where this should be done. But the motive might be deduced from the doubt whether, in the country about Villersexel, which did not oppose any great obstacle to the employment of their superior numbers by the French, the decision by arms of all forces against all could have been brought to a successful issue. On the Lisaine, on the other hand, the prospects were more favourable,

escape for clear judgment. "Let one only refer the subject to a great and simple point of view." * Let us recall to our memory what we originally intended, what the object was for which we contended, and let us thus subject all disturbing incidents to a more powerful aim and tendency.

On receiving the news of the strong resistance, which parts of the 2nd Army, during their advance upon the Meuse on the 16th of August 1870, experienced at Vionville, General Von Moltke wrote from Pont à Mousson to the Ober-kommando :—

"According to our view, the decision of the campaign consists in the enemy's main forces, now retreating from Metz, being driven back in a northerly direction. The more the 3rd Army Corps has before it to-day, the greater will the success be to-morrow, when the 10th, 3rd, 9th, 8th, 7th Corps, as well as the 12th, will be available against the same forces."

Here in the crisis was the great point of view adhered to, that the original plan for the conduct of the whole campaign, was that the enemy should be pressed back in a northerly direction and cut off from his line of retreat upon Paris. From this point of view, in spite of the surprising turn matters took, the right resolve was regained. It would, perhaps, have been lost, had the authorities busied themselves with details, which so abundantly showed the course of the battle, the number of the enemy, and the positions of the various troops.

"Great aims are the soul of war, and what would become of the whole theory of military science were its great views and measures buried under a hill of small difficulties, which have been with difficulty collected from the whole range of possibility." †

We have seen, that during military movements the resolve must express itself in clear orders, if it is to have the proper effect; and thus, in like manner it is a condition necessary to generalship upon battle-fields, that it gains a proper support in the behaviour and personal influence of the commander. In his conduct there must be expressed a belief in his own powers. He must display the confidence, that what he has correctly devised he will

* Clausewitz.

† Clausewitz. Encamped quarters, Tennstedt, near Weimar, the 12th of October 1806.

also bring to a successful issue. Personal influence is difficult of acquisition by him to whom it has not been given. First-rate men, who are in all respects perfectly clear-headed and conscious of their purpose, may lack it. Here, then, it is that the innate gift of ruling asserts itself. The contemplation of human nature provides us with a few suggestions. "In the face of the enemy, the soldier is not so machine-like as on parade, and this is as true of the highest commanders as of the private soldier."* Even pretended security may be advantageous, whilst a careless word of doubt and of care may easily do the gravest harm. In action, the optimists regain the value which, with their views of the world, they have lost on the field of philosophy. Mephistopheles becomes to us, as to the student, a most excellent tutor—

> An Kühnheit wird's euch auch nicht fehlen,
> Und wenn ihr euch nur selbst vertraut,
> Vertrauen euch die andern Seelen!—*Faust.*

This is no less applicable to the soldier than to the student of medicine. From this self-confidence there will proceed a successful manner of commanding. For a safe leader in battle a knowledge of the knack of moving troops is indispensable. We must not allow them to influence us too much, but yet must not treat them entirely with neglect, otherwise they avenge themselves. Furthermore, the habit of commanding is essential.

As the feeling of responsibility is the bitterest foe of all resolutions in war, it follows that those persons are, as a rule, the richest in resolutions who have no responsibilities. When a young man rides with the staff of a field-marshal, he, in his unbiassed mind, often makes his decisions with great rapidity, and joyfully takes the most momentous decisions upon his shoulders. As such a man often finds from experience that what he had intended was the right thing, he readily believes that he only needs a field-marshal's bâton to be a great general. But prudence commands that he shall not suppose himself a Napoleon before he has proved himself in a practical way in a responsible position. The burden of responsibility changes all at a single blow. War is then regarded all at once with other eyes. It is as if a man

* Scharnhorst, *Handbuch für Officiere*, III., pp. 282, 283.

holds a yellow-red glass before his eyes; it then seems to him as though the sky, which just before smiled so serenely upon him, now hung pregnant with thunder o'er appalled nature.

The weight of responsibility is not everywhere of the same effect; it increases with every step a man mounts up the military ladder. Upon the lowest step he begins with but little pressure upon him. That will be especially seen where, as in our army, the whole corps of officers belongs to the same social standard and forms an intellectual and aristocratic body. Among them, the lieutenants are consequently the pertest and most forward lot of all; for they all feel themselves to be field-marshals in embryo, without at present having to bear the burden of the responsibility of such a post. They form an ascendant energy below, and this extends. In this way an impetus is given to the whole mass. In the independence of the lower commanders there lies an energy which cannot be replaced by aught else. How much more rapidly and effectually the machine of the army works, when each individual part works independently, than when the impetus is waited for from above, is self-evident.

If in an army the habit prevails of only doing what is ordered, its movement is by fits and starts, or somewhat sporadic. It experiences on each occasion an interruption, when unforeseen circumstances intervene, because all concerned first wait the dispositions of the higher commanders.

The disconnected nature of many of the operations executed by the French army in 1870, can be sufficiently explained by the lack of independence in the lower grades.

In order that the difficult task of leading our great armies well may succeed, it is indispensably necessary that the impulses coming from above should be constantly prepared for from below. In the late war, we have often had occasion to observe, on the German side, that when orders came to the armies and corps from the headquarters the execution of them had already been begun.

The spirit of *initiative* urges to independent action. It renders armies strong. We rightly adhere to the principle that, in the case of an officer who has been guilty of neglect, an excuse to the effect that he had received no orders is of no avail. Passive obedience is not enough for us, not even the mere fulfilment of

what is enjoined, when the occasion has demanded that more should have been done. Clausewitz declares it to be a sign of mediocrity to do always only exactly what one is officially required to do. We call it an insufficient conception of duty. Frederic the Great demanded that every officer should at least prepare himself for the next rank above him. Only in this way is independence and initiative trained.

A corps receives orders to continue the next morning the march it has already begun. Intelligence is suddenly brought that the wing of the army has unexpectedly come into collision with the enemy. It is probable that the Ober-kommando will abandon the old road and take a new one to the scene of action. But orders have not arrived. Thereupon, the commanding general decides to place his corps the next morning in a position of readiness, so as to be able, without making detours or without losing time, to march off in the altered direction. That is initiative.

The commander of artillery whom, in our description of an accidental battle, we made bring his batteries to the front before receiving orders, and who thus anticipated the wish of his commanding general, showed initiative. Not less is it displayed by the commander of the advance-guard, who perceives that the enemy, whom he is observing, is moving off, and who now attacks him because he perceives how harmful it would be to allow him to escape.

Initiative must not be confused, as is so often done, with simple go-ahead. An attack, as a clever soldier of high position once cogently remarked, may be precisely a proof of a want of initiative. That is so in the case of an advance-guard, which is engaged in advancing, and which attacks the enemy, only because the commander cannot come to a clear decision as to what he ought properly to do.

Initiative is an arbitrariness born of understanding, which promotes the ends of generalship.

It cannot certainly be denied, that it may be sometimes inconvenient, by crossing and running counter to the higher views of the field-marshal, and, by *faits accomplis* which cannot be undone, robbing him of his liberty of action. Especially in the higher regions, careful consideration must precede, because here a part is staked the fate of which influences the whole; and this is not the case

when the initiative is taken by commanders of subordinate rank. But nothing would be more erroneous than if, because inconveniences can occur, one were to attempt, generally, to counteract the initiative in the army, and to restrict, on principle, the independence of subordinates. In order to avoid a mistake being made, a hundred promoting impulses would be blotted out, and enormous amount of strength lost. Besides this, initiative is opposed by powerful enemies. Such are, intellectual laziness, the *laisser aller*, the ordinary every-day action, the fear of responsibility, the habit of the great mass of men to allow themselves to be pushed on by events, of waiting until these visibly impose upon them the duty of acting, instead of doing so of their own discernment. These negativing forces, easily lame, as it is, the force of action. If they are aided and abetted by restricting and confining independence, it will not be long until they have choked all life, and the troops have become a soft mass, which, though it can certainly be kneaded by its masters at will, lacks the mainspring necessary to do great deeds. The initiative can easily be driven out of an army; but it is extremely difficult, and, perhaps, utterly impossible, to restore it when once driven out. There is only one means of preventing the ill consequences of the initiative, and that is a uniform training of the discernment. This means is quite sufficient, and will not prejudice the independence.

A philosopher of modern times informs us: "I have, alas! too late after the event, learnt to perceive that in very many cases doing nothing is the most effectual, the cheapest, and the least dangerous, in short, the best and cleverest thing that can be done." In civil life, this maxim may contain great wisdom, but we must banish it from military life. The soldier must perpetually do something. The inclination for it will, it is true, only remain in him when he is certain to receive thanks, or, at all events, no disapprobation on principle. The highest military authorities must have a conscious generosity when dealing with the independent actions of their subordinates.* The German authorities in 1870 did not, when

* This is also very necessary in peace. Besides, as a rule, too much is here ordered with respect to the smoothness and prettiness of a battle. But an officer, who, by independent action, disturbs the nice grouping, is often severely reprimanded. He determines, in consequence of such experiences, for the future to

confronted by *faits accomplis*, squabble long with their authors, but, as they were once and for all unchangeable, took them simply into their calculations as they were. By thus doing, they attained, in the case of all their subordinates, courage to act independently, and, at the same time, confidence in making their ventures; for each knew that he would not be left in the lurch, but might consider himself certain of support in higher circles. Thus the strength of the whole army was doubled.

There is no more foolish doctrine than that the general must leave a subordinate commander, who has, without his permission, involved himself in a ruinous battle, to his fate. Wherever such a thing happened, except at the bidding of iron necessity, it would be equivalent to fighting against his own army.

He who allows independence, does not by so doing open the door to *arbitrariness*. The boundary between them appears to be very indefinite, but can yet be perceived, as soon as the motives for action are regarded. The verdict must be determined by these, and not by the success; for success is often dependent upon accident. Arbitrariness always springs from egotism, and not from interest for the common cause. Independence derives its right from the fact that it promotes higher aims, or, at all events, intends to promote them. Where this reason is excluded, and egotism is indulged in only for its own sake, it changes into arbitrariness. General Von Manstein's attack at Kolin was an act of arbitrariness; for it could be perceived that it could never have served the ends of the war, but only his own glory.

Independence and arbitrariness are in no wise, as is so often thought, nearly allied. The first risks the person for the sake of the thing; the second, the thing for the sake of the person. Each is foreign to the other, and it will, therefore, be quite possible to adopt the one and to discountenance the other.

Resolve is the author of action; Firmness its preserver; Initiative nourishes it; Independence protects it from interruptions; and where these qualities are found, Arbitrariness is unknown, for the former spring from a good, and the latter from an evil spirit.

prefer to wait for orders. And this becomes, by degrees, a habit. Where there is a lack of independence in the *lower* commands, the fault will, as a rule, lie in the higher.

SECTION VI.

SPECIAL INFLUENCES UPON EVOLUTIONS AND BATTLE.

It has never yet occurred to anyone to write a strategy and tactics for the different seasons of the year, and yet their influence is certainly quite as great as that of *terrain*, which has often been treated so long-windedly.

That evolutions and battles, when rain or thaw has covered the ground a foot deep in mire, and when neither cavalry nor artillery can be employed, except on the roads, will take a different form to that which they take in times when troops can be freely used upon hard and firm soil, is self-evident. Battles under such circumstances are less decisive in their issue, and more dragging in their course, than at other times. Impetuous onslaughts are quite as impossible as rapid pursuit; defence gains in strength. The tactical efficiency and dexterity of good troops cannot make itself felt to the fullest extent. Bad troops may sooner venture to await them on the spot, in order to measure themselves with them. The plans, under the influence of such elementary considerations, must become restricted, or the energy of the commanders and the exertions of the troops must double themselves.

In the same way, the difference in the length of days, which the various seasons in our latitudes bring with them, influences military operations. By far the greater part of the work of war can only be effected by day, in which we, as is well known, intend to include the dusk. Accordingly, in the height of summer the day means from 2 A.M. to 10 P.M.; in winter from 7 A.M. to 5 P.M.; that

is, in the one case, twenty hours, and in the other only ten. But we must remember, that in battle effect does not advance simply with the time, but increases in a progressive ratio. A victory, which in six hours is only half fought out, can be changed into an annihilating defeat of the enemy if only two hours are gained for carrying on the battle.

In winter, marches are always more fatiguing. Not merely do the snow and the bad roads occasion this, but cold also. It drains the strength and tires. A man needs more sleep ; the start in the morning is delayed, although the troops reach their quarters earlier. Besides this, all must be brought under shelter, and the troops spread further afield, in order to find warm rooms. Every collection of troops takes longer to effect, which makes itself doubly felt in the short days. Rapid concentration of troops from great distances is impossible, as are engagements after long marches to the front. More caution must be displayed in dividing up the troops, and they must be kept closer together, a precaution which is again counteracted by the necessity of better accommodation. Cold increases hunger; thus the troops demand better provisions. Warm food is indispensable.

From the increased difficulty of moving, and the shorter working time in winter, it follows that it is scarcely possible to fight out battles in a sheltered country, which last very long. Frequently, a thick morning mist, lying over the snow-clad fields, lengthens the night for the soldier. The days of Le Mans have shown us how difficult it is under such circumstances to drive an obstinate enemy out of a country which is advantageous for him. The engagements began late. The snow impeded the advance of the lines of rifles, the darkness which supervened put an end to the battle, just when success began to be apparent and the enemy began to break up. The length of the winter's night rendered it possible for him to rally, to take up fresh positions, to bring up reinforcements, and to prepare for resistance on the morrow. The process of destruction which was being wrought in the French army, was too frequently interrupted to proceed very fast. In the height of summer, on the German side, in three to four days would have been completed what in winter took seven to accomplish, and the result would have been double as great.

Wellington, with his memorable saying at Waterloo, "Would that it were night or that the Prussians were here," very aptly expressed the influence of the length of a day upon a battle. Another hour at St. Privat would have much enhanced the success. On the other hand, if we suppose the battle to have taken place on the 18th of December instead of on the 18th of August, it would be very questionable if it would have been begun by 12 o'clock noon. But if this be presupposed, the end of the battle would have taken place just at the moment when the attack of the Prussian Guards upon the village of St. Privat had come to a standstill. The battle would have had to be renewed the next morning, but in the meanwhile Marshal Bazaine would have gained time to bring up his reserves upon his threatened right wing, that had not as yet been in action. This would thus have been very considerably strengthened, and it is uncertain what the further course of the battle would have been.

General Von Stiehle, in his excellent treatise upon Kunersdorf,* urges among the causes which led to the loss of the battle, "the great heat and the long summer day." He adds: "How similar would, in all probability, have been, in their issues, the battles of Torgau and Kunersdorf, if the first had been fought in August and the latter in November. Had the night at Kunersdorf begun at 5 P.M., a retreat of the Russians during it is more than probable, or, at all events, a concentration upon the Judenbergen. The operation of General Von Wunsch might then have had after-effects,† and, in an extreme case, the King would on the ensuing day have renewed the battle from the commanding Grundhaide with the moral impulse of the semi-victory of the previous day."

As the King, had darkness set in at the right moment, could here not possibly have been able to think of continuing the battle after the first important successes, so would Zieten at Torgau not have been able to take, to say nothing of asserting, the heights of Siptitz at the Schafteich by day-light, which in the month of

* Supplement to *Militair-Wochenblatt* for the first quarter 1860.

† General Von Wunsch advanced, on the order of the King, during the battle, in the rear of the Russians from Lebus upon Frankfurt on the Oder, took this city, and blocked the bridges of boats there against the flying masses.

August would have prevailed at the time of his attack. The duration of daylight is, accordingly, an important factor in carrying out a pre-concerted battle.

A too late beginning brings only half a success. It is disastrous when a complete decision is aimed at, and can be advantageous if we satisfy ourselves with half a decision, or only feel the energy for such in us.

Upon the spirits of the army the season of the year also has a certain effect. On a bright spring morning, the troops march with far fresher courage, and with quite different vigour, than in the summer or on gloomy rainy days.

How much the health of troops is affected by the *weather* needs not be said. When want of supplies are added to bad weather an all-destructive force can result. Especially detrimental are these influences at a time of compulsory inactivity, in camp life, and under such-like conditions. Rightly, in 1870, did the Ober-kommando of the army before Metz devote its attention chiefly to this point. Often, in the orders issued, was the necessity of keeping the soldiers occupied by duty and labour in the investing lines especially emphasised. In one of them, dated 9th September, it is further enjoined :—

"Every exertion to be made to see that the continuous bad weather does not turn out calamitous. Every roof must, therefore, be utilised for quarters, so that the outposts may be relieved from time to time, and may be able to dry their clothes by the fire under roof. A certain and sufficient supplying of the bodily wants, a resolute will, and the conviction that the enemy fares worse than we—as all the prisoners of war testify—will enable us also to overcome these hardships."

Motion, as a rule, lessens the influence of bad weather. It works gratefully upon the feelings, by the changes it affords the eye and the senses. Every march after a long halt is somewhat refreshing. Considerations of health often render a change of air desirable. Infectious diseases spread less easily, and regularity is favourable to the physical activity.

What a *rôle* weather can play in a battle around a fortress, when the wet has turned all trenches into water dykes, or the frost has made the ground so hard that it resists the spade and the hoe, is

shown by the history of winter sieges, among which we need only remind our readers of Sebastopol and Belfort.

A winter campaign is a hard test for every army, and under very unfavourable conditions considerations of preserving the troops may so push those of employing them into the background, that they finally become the chief solicitude of the leaders.

Prompt precautions are quite as important as sufficient ones. He who only thinks of these, when the need for them makes itself felt, will be too late in applying the remedy.

In any case, with the increase in armies, *attention to health* in war gains in importance. It is something horrible to see day after day whole railway trains full of sick being transported to the rear, reserves only slowly coming in, and no remedy available for putting an end to this continuous process of destruction. Let us only think of Sennacherib's host before Jerusalem. The loss of strength owing to disease is scarcely credible, but yet one single instance suffices to make one believe that it may at last undo all successes. The conditions of health obtaining in the German army in France were quite favourable; no dangerous pestilence broke out; and yet, during the course of the war, 400,000 sick* were obliged to have recourse to the hospitals. The average duration of the absence of the sick from their regiment has recently been given by a cautious observer at about twenty days. The total result, in respect of martial achievements, is accordingly equivalent to the absence of twelve army corps for about three weeks. No remedy must be left untried to counteract this natural dissolution. Climate and the civilisation of the land in which war is waged will make various and different measures necessary. In a war in the East quite different precautions must be adopted, and considerations of preserving the health of the troops would there play a far more important *rôle* than in a campaign on French and German soil.

Of considerable influence is the melting of the *numerical strength* in war. A battalion which, at the commencement of the campaign, numbers 1,000 rifles, sinks at its close to 300. The army corps, in respect of the number of their combatants, become weak divisions, the divisions weak brigades. And yet a definite plan

* Besides the 100,000 wounded

and definite demands upon them are inseparable from their names. A temptation exists for the supreme commanders to reckon simply with corps and divisions, and to assign to them at the end of the war the same tasks as at its beginning. This is favoured by the fact that certain factors never change. The head-quarters, the General-Kommandos, the number of guns,* and the baggage-train remain the same. The rapid melting down of the forces is shown principally in the infantry, far less in the cavalry and artillery. The weakened infantry must, however, all the same supply all the detachments and pickets, and discharge the duties of covering, &c., and thus again loses a greater fraction of its total strength than in the first period of the war. The main arm loses more and more its importance. The artillery comes more strikingly into the foreground. In strengthening this arm, Frederick perceived the only means of equalising the consumption of the strength of his infantry. "I have considerably increased our artillery, which may assist the deficiencies of our infantry, whose substance can only get worse in proportion to the length the war lasts," he wrote in the winter of 1758 to Fouquet. But if the artillery only retains its old strength, whilst the corps of infantry in the front sink from 25,000 men to 15,000, 12,000, 10,000, and even—as was once the case in 1870—to 7,000 combatants, it must, by degrees, be reduced to the *rôle* of a cover for the artillery.

Owing to this, and to the simultaneous loss of martial ardour and enthusiasm, the operations adopt a different character. Whilst the masses so reduced would certainly give a general like Bonaparte an opportunity for exercising surprising dashes, appearing suddenly here, and then disappearing, the conditions I have described make, as a rule, battles more feeble and less spirited. We now rather push than annihilate. The battles become cannonades, which create much noise and expend much powder, keep the field clear of corpses, and end without any real result. The change is, it is true, concealed from the country; for the feeling of less energetic action awakes in those participating the need of magnifying their deeds by coloured descriptions. The longer the war lasts, the more vivid is this colouring, so that the country gets in

* Accidental losses in action deducted.

the newspapers a sort of equivalent for achievements. On the Lisaine, the whole corps of Werder, all three days the battle lasted taken together, had only so much loss as each of the three brigades of infantry of the 3rd Army Corps at Vionville within eight hours, less than the 38th Brigade, 5,000 men strong, and just as many as the 16th Infantry Regiment in a single hour. In spite of this, the battle on the Lisaine was, in the daily papers, described as being not less bloody and exciting than that of Vionville. Months had elapsed, which had lowered the demands made upon the soldiers and increased their self-content.

An eye-witness must be struck by the gradual loss of energy during the whole operations. It is a factor with which we must reckon, and which, when not counterbalanced by the intervention of some powerful personal influence, renders care necessary in employing the troops.

A remarkable testimony to this was an order of Prince Frederick Charles during the Loire campaign, issued on the 10th of December 1870; and it may find a place in this treatise, because such exceptional conditions are seldom noticed as they should be.

"The engagements of the last few days," the order runs, "and the repeated attempts of the enemy to fight against us in open country with increased artillery, cause me to draw the attention of my generals to the fact that ineffectual artillery-fire must, in all cases, be confined to ranges exceeding 2,000 *mètres*; otherwise the supply of ammunition, in spite of all our exertions, cannot be assured.

"Where the enemy, as he has hitherto done, sometimes takes the offensive against us, and we properly occupy our terrain, we shall be enabled to use our fire to its fullest effect, which, in the case of the artillery, must only amount to rapid fire at the most propitious moment.

"If, on the other hand, the enemy, as is his wont, only plays his artillery-fire before our front and awaits our attack, it will be advisable for our front to use its artillery very little, until one of the enemy's wings has been outflanked at not more than a quarter of a mile (German). Here then will be the place for lively artillery-fire, in order to induce the enemy to undertake the offensive against our outflanking movement.

"With such outflanking, our numerous cavalry with horse-artillery can meanwhile effect a feint in the enemy's rear, and thus to cause confusion in his ranks.

"If the enemy's attacks have been thus repelled with loss, our offensive with our infantry can then take place, so as to compel him to retreat.

"In this way, those resultless battles will be avoided, that weary the troops, cause us useless losses, and consume our valuable ammunition."

The peculiarity of this order in respect to the employment of the three arms, the sparing and yet the use of the weak infantry, renders it a model for all battles of a similar kind.

The *qualities of the enemy* whom they are fighting influence also, in no small degree, the fighting qualities of the troops. Even the best army, which for a long time only fights inferior enemies, suffers in efficiency. The experience of war in Algiers, Eastern Asia and Mexico, of which the French troops in 1870 were so proud, did not show itself to advantage in the war against Germany. It was proved that the military parades across the ocean had only produced a routine in small wars, which were nearly valueless for European conditions, whilst, on the other side, they had reduced an otherwise brave army to over-estimate itself and adopt a number of idle habits. And by its victories so easily gained over undisciplined bands, this army became entirely disaccustomed to serious resistance, and to consistent and vigorous action on the part of its opponents. It is, moreover, peculiar, that soldiers who have to make but little sacrifices for their successes, begin more and more to fear making them. The fewer warriors fall, the more precious does each consider himself, and the more does the inclination to die for the Fatherland recede. The bloody scenes of general destruction, as displayed at Vionville and St. Privat, lowered in the eyes of each the value of his own person. The greater excitement increased the exertion of all the energies, self-sacrifice, and contempt of death. When we began later to take things more easily in the war, the whole manner of action became more faint-hearted. We likewise began to give way, after having for months the raw troops of the September Republic before us, over which we so frequently triumphed with but little exertion. When

then at last a strong character in the enemy's army, and peculiar circumstances favourable to it, brought about a really tough resistance, the work was hard for our troops. It is the best evidence of their internal efficiency that they did not on this occasion give way.

The most difficult task that can be imposed upon an army is to enter upon a second campaign against fresh enemies, immediately after one in which its moral energies have been partially consumed. Fortunate as Napoleon's operations against the Prussians and Saxons in the autumn of 1806 had been, they all the same came to a standstill when in the winter he encountered the Russians and the corps of General von L'Estocq, which had not previously been in action. We, too, in 1870, felt uncomfortable when the first brilliant epoch of the war against the French Empire was closely followed by a second against the Republic.* What a great impression is made by the appearance of fresh troops upon the field, when all have struggled themselves tired and weary, is told in every page of the history of war. Of not less influence is the appearance of new enemies upon the theatre of war. Much, of course, depends upon the especial sensations with which the second period is entered upon. If it comes unforeseen, if the army has cradled itself into the comfortable feeling that it might rest upon its laurels, the victory over self will be all the harder. If, after having humbled one enemy, the necessity of turning upon the other has been from the first clearly perceived, the second step has been, to a certain extent, prepared for. Of course, the amount of the losses which the first has cost, is also of influence. An army which has achieved great results with but moderate sacrifices, like that of Napoleon in 1805, will even draw vigour from its experiences. But it is, as a rule, a deception to believe that it is possible with the same forces, first on the one side, to lead to a final issue a bloody campaign, and then at once to use them, on the other, with the same energy. Even a victory in the first encounter has exhausted the energies, damped the martial ardour of the troops, and quenched their thirst for honour and glory.

* To this are certainly to be attributed many of the dissenting opinions held at that time in military circles as to Gambetta's activity.

SECTION VII.

THE INFLUENCE OF FORTRESSES.

THE battle around strongholds belongs only to this treatise in so far as it deals with warfare generally.

Siege and defence will, in the future, be nothing but a number of artillery engagements, in which the opponents will severally hurl at each other thousands of tons of iron, and make their projectiles, by filling them with a large charge of explosives, have the effect of mines; thus ploughing up the whole battle-field and destroying all bulwarks. The attacker opens his artillery against the front where he hopes for success, and against which, according to the situation of the railways and roads, he can bring up his heavy siege-guns. The defender feels himself confined to the walls of the fortress, and too much exposed to the flank fire of the enemy. He, too, betakes himself to the open, develops his wealth of cannon between the outlying forts, or the works specially constructed for the war,* and here accepts battle with his batteries, which he now first plants for this object.

All further steps depend upon the issue here.

If the attacker is defeated, if he is unable to restore the battle by bringing up his reserves of guns and to turn it in his favour, the siege will be interrupted and reduced to an investment, until fresh resources have been brought up from the base of operations.

If the defender is worsted, he will not wait for complete annihilation, but will conceal for the present the guns that still remain

* Provisional works, such as played such a part at Silistria, Sebastopol, and even at Belfort, unless a very long time has been expended upon their thorough reconstruction, lack in these days the requisite powers of resistance to the modern guns.

his. He permits the attacker to push up his intrenchments against the stronghold, and only resorts to his artillery-fire a second time, when the enemy has come so close that he must confine himself before the works to a very narrow space. The advantage, too, of outflanking—at all events, at a short distance—is here annulled in the case of the attacker; the co-operation of side-fronts is, in this case, favourable to the defender. If, however, he has once been worsted in the first artillery battle, he will but rarely win the second, for in the course of the siege the losses of his guns increase.

From the time of the second artillery battle, the fall of the fortress will be merely a question of time. The engineer conducting the attack must force the defender, and render access practicable to the breaches made by the artillery or the mines, but, as a rule, unless aid comes from without, the fate of the place is decided.

We are, perhaps, in these days too much inclined to somewhat over-estimate the superiority and the destructive power of artillery. Fortresses which are well constructed, works which, hewn out of the solid rock, stand upon ground that renders the throwing up of intrenchments a difficult undertaking, can now, as ever they could, serve as bulwarks and display powers of resistance with which they are now scarcely credited. But, generally speaking, it is the greater strength in artillery that decides the battle for the possession of a place.

This circumstance is not of little influence upon the *rôle* fortresses play in great wars. Important strongholds have, in these days 300, 400, 500 and more, heavy guns. The attacker need not outbid these numbers, for he can combine his batteries before his front, whilst the defender must plant several, and must supply some of them rather plentifully with metal. Besides this, the attacker can move about at will, and choose the place for planting his batteries, which materially conduces to strength. But he, too, will have to bring up hundreds of heavy siege-guns, in order to be able to begin with any prospects of success. We know what incredible difficulties this causes, and that the attacker must be extremely saving in opening sieges, and make his determination with extreme care and only after serious deliberation.

As a general rule, in the future, only those fortresses will be in-

vested, the possession of which is considered absolutely necessary for the conclusion of peace, and such as must be removed in order to gain the indispensably necessary space for the evolutions of the armies. Special reasons will seldom be decisive, as was the case with Sebastopol, where England wished to destroy the nursery of the Russian naval power in the Black Sea.

Hence it follows, that the two most natural ends that the building of fortresses can fulfil, consist in securing the possession of important places and in blocking communications. Accordingly, passages across rivers are strongly protected, in order that a safe transit from bank to bank may be had by large and sweeping works. Arsenals that are vital to the army or the navy are concealed when they are so situated that the enemy could easily destroy them. Great fortresses are also built in distant provinces much exposed to the enemy, and into which, by reason of their situation, no considerable army can be sent. Then, without such an army, it would be no easy task to dispossess the owners. East Prussia would never find itself in the enemy's hand as long as Königsberg held out; whilst the regaining of the province would be rendered easy by the possession of this place. Only a very much weakened adversary can, in any other place, be forced to surrender such bulwarks, such as, for instance, the Russians succeeded before Constantinople in doing; compelling the surrender of the Bulgarian fortresses.

Theory usually allows fortresses a greater influence in a great war. They are made silent participators in all the evolutions of the army. They are described as being supports for the advance, a basis for the attack, and gates of sorties; their flanking effect is also spoken of.

Under such pictures, however, confused ideas are concealed, and they require a simple explanation.

That the advance receives support from frontier fortresses is correct, in so far as that otherwise it would be easier for the enemy to disturb it, if he could put himself into prompt possession of the points as yet closed to him. Strong garrisons, immediately on the breaking out of hostilities, can send out detachments to occupy important railway bridges, &c. The observation of the frontier is facilitated, the soldiers in the frontier

districts have a safe place to collect in, and to be clothed and equipped. In the fortresses, too, there is room for magazines, which must be rapidly established, whilst the troops are collecting. In short, there is no lack of a number of such subordinate advantages. But the protection which the troops gain for their unshipment and development, is limited. The enemy cannot, it is true, push forward in the immediate vicinity of the fortress, and interrupt these doings, and, moreover, the troops of the arriving army which have been unshipped in the fortress are quite secure. But this advantage can only be enjoyed by a comparatively small part of the whole army. At some distance from the fortress, interruptions of traffic on the railway are possible.

The fortresses of former times were of great value as *bases*, where the armies were dependent upon one, or only a few, magazines. Had Naumburg been a fortress in 1806, Napoleon's outflanking could not have made the same crushing impression upon the Prussian army upon the Saale which it did. The sole chief magazine there was lost. In these days, when the whole country behind the armies is loaded with supplies of all kinds, the loss, and, in consequence, the protection also, of such an emporium can be of no moment. The *rôle* of a fortress, as a basis, is thus limited; it will only be of importance where the advance has to be made within a very narrow space: for example, where a naval Power possesses fortified harbours on a foreign coast which form the natural and sole basis for its incursions by land.

That fortresses are especially favourable *gates for sorties* is also difficult to prove. The works do not facilitate movement. An army will make more easily a sortie through open country. If the army is confined to a narrow strip of land, perhaps a defile between mountains, which the enemy could bar against it with few troops, it will, of course, be well to secure possession of the pass. Thus did the French, through their fortress of the first order, secure the famous "*trouée de Belfort.*" But "blocking" is difficult in a civilised country well-provided with roads. In order to seize it, a few good forts would have sufficed, and a camp-fortress might have been dispensed with. Belfort, the cession or retention of which was the subject of diplomatic discussion in 1871, in its

present form serves more the purpose of securing one point permanently.

But, relatively to the *flanking effect of fortresses*, this is still more open to question. The idea underlies it that the commandant of a fortress which is not being invested can employ his garrison in external operations. In following out this idea, it is impossible for the adversary to allow his lines of communication to pass close in the vicinity of a fortress, unless he be prepared to have considerable forces on the spot to protect them.

The correctness of this view will be recognized by every commandant. Every one of them would agree that he is only in this way enabled to turn the stronghold, built with so much expense, and its numerous garrison, to account, in case the enemy attempts to pass by without respecting it. The thought will even be present to him, to force a siege by constant and energetic activity in the more remote vicinity, in order that the fortress thus may fulfil its proper ends. But cogent and momentous reasons are obstacles to the realisation of this plan.

In a great fortress, on the breaking out of hostilities, there is such an extraordinary amount of things to do that all energies must, at first, be given up to this work. Moreover, the best of fortresses are not, in times of peace, prepared for defence. The surrounding country must be cleared, ramparts arranged for mounting the guns, ditches cleared out, obstacles contrived, doors and bridges secured, crossings, ways, and lines of metals laid, outlying villages fortified, advanced positions built, ammunition prepared, all *matériel* got ready, and bomb-proof chambers built, which, in extent, often are many hectares square. Besides this, magazines, depôts, and hospitals must be organised, and protective measures taken against fire.

Every fortress will show deficiencies which have not been made good in time of peace, but which remained to be removed by the preparations for war. In short, there is altogether work of such an amount as can rarely be properly finished during the campaign. There always remains still much to do and much to desire. The completion of provisional works, if they are to possess any degree of defensibility, requires months. The French surrendered to us at Metz and Paris redoubts at which they had been

building during the whole investment, and which at the last were still in a partially incomplete state.

In comparison with the extent of modern fortresses, the garrisons of all the various parts appear quite insignificant. They are so distributed over the great space that the defence at any one single point appears weak. Everywhere will the wish for reinforcements be heard. The sentinel and outpost duties upon long lines make immoderate demands upon the forces.

The commandant must pay all possible attention to being as ready as possible at the commencement of a siege. In this way he will never judge the moment for external operations to have come, and then, when it has arrived, he will discover that he has really no extra strength to dispose of.

The fear lest the enemy should begin an investment before the expeditionary columns have returned, and that thus their return will be impossible, prevents distant excursions being made. But in the vicinity there is frequently found no adequate object.

Under any circumstances, such operations have to contend with great difficulties. If a distinct object in view is wanting, as, for instance, a base of the enemy, vulnerable places in his lines of communication, &c., excursions will frequently result in nothing. To make a sortie from the fortress, only in order to look for booty worth the taking, is, generally speaking, not possible, because expeditionary troops are but weak in cavalry, and the obtaining of intelligence will, therefore, be greatly impeded. The commandant will have to grope about in darkness. Very rarely is it possible in a fortress to be sufficiently informed as to what is going on outside, so as to know definitely that the enemy is not in a position to rapidly collect superior forces, and crush those parts of the garrison that have ventured into the open. Their situation will also be made worse by the fact that in making a retreat they are dependent upon one single point. But the annihilation of one of the columns may, when their strength is a considerable one, jeopardise the defence of the fortress against a formal attack. The moral effect of such a loss upon the garrison is, beyond doubt, serious. If parts of the garrison that have been sent out meet together with their own field-troops, and if, conjointly with these, they become implicated in engagements, they easily obtain another mission. *This they will,*

as a rule, gladly jump at. But they are then lost to the commandant. This experience was made, in January 1871, by General Rolland, when he dispatched the battalions of his Garde Mobile to support the Army of the East operating against Belfort. They never returned. The inclination troops have to free themselves from the ban of a fortress, which is always regarded as somewhat like imprisonment, is too natural not to be reckoned with.

The Damocles sword of a formal attack is always hanging over the head of the commandant, and this will make him reserved as to his external operations. If he is quite certain that such attack does not threaten him, that the enemy has disposed of his siege-train and cannot bring up fresh *matériel*, that is the precise moment, but the certainty of it will only be attained in the rarest cases. *Fortresses protect the troops they contain, but, at the same time, anchor them to the spot.* A bold attacker will pass by in the vicinity and keep open his lines of communication at a respectful distance without fear. The flanking effect of a fortress is, ordinarily speaking, not great. Exceptions may occur, when the garrison is exceptionally strong, or when a part of the active army has been temporarily driven into the fortress, in which case these forces upon which the commandant had not reckoned, and which do not belong to him, must be turned to account in some way or other.*

During the war of 1870–71, the fortress of Langres lay in the rear of the German army. With a garrison of 17,000 men and at no time threatened or even invested by the half this number of troops, this fortress never really endangered the lines of communication of two armies which passed by a few miles away. Much was, it is true, written and talked about its being the fountain-source of all alarms and interruptions, but these consisted far more in what was feared than in what actually took place.

Both the interruptions of any importance which took place in the country about Langres, the surprise of Chatillon sur Seine, on the 19th of November 1870, and the blowing up of the bridge of Fontenoy on the 22nd of January 1871, were the work of French marauders, acting independently. Yet neither the com-

* Of course such bodies of troops will least of any be inclined to allow themselves to be fettered permanently to a fortress

mandant nor yet the garrison can be reproached with inactivity. Here, too, natural impeding forces were at work. The only excursion made with considerable forces of all three arms, for any great distance, ended at Longeau, on the 16th of December 1870, with the defeat and death of the commander.

Every commandant, who is not beleaguered, must endeavour to turn his combatant forces to account by offensive activity. But only few possess the opportunity, still fewer the necessary daring. The demand is not a slight one.

So in every war we shall see a great number of fortresses fully equipped and prepared, whilst only a few of them play any part.

A modern fortress of moderate importance has a garrison of 25,000 to 30,000 men. Five such fortresses thus require a whole army. Too many great fortresses may accordingly be regarded as being a source of weakness. Some field troops will usually be mixed with the garrisons.*

Strongholds, which are directly affected by the movements, may be of great advantage to the active army. Most dubious, however, is that advantage, which is made so much of, namely that a defeated army can find protection behind the forts of a fortress, and rally and rest there, and then break out again afresh. The last part of the programme will, as a rule, remain a good resolution. *Great armies, which are shut up in a fortress after lost battles, are, as the history of investments from Alesia down to Metz proves, almost always lost.* This is primarily due to the bad moral effect, which the consciousness of having a secure refuge behind the guns of the fortress must exercise upon every army that has learnt to know and to feel the superiority of the enemy. And next, it is a material fact that the freedom of motion for a numerous army in the camp of a stronghold is very small. Masses of houses, gardens, walls, hedges, plantations of all kinds fill up the inner space between the works. The troops are more or less

* However, great fortresses, which once and for all are there, cannot be abandoned, without more ado, in order to spare troops, at all events such a resolve is hard to make. Changes in the political situation may unexpectedly make a fortress that has been surrendered of importance. The unlooked for course of a war gives it, perhaps, an importance that could not be previously estimated. In a few important fortresses it is essentially necessary to keep them from being taken by the enemy, who would seize them, if it were made easy for him. Here the works must remain, even when siege is not expected.

confined to narrow streets. Their formation in battle array is but slowly effected. It is only essential that the investing army finds well-situated stations of observation, in order to be ready to oppose the invested army at the place where the irruption is attempted. The investing army has to cover greater distances round about the fortress, but, in return for this, it has the possibility of being able to utilise more roads and to march without let or hindrance. At the spot it has only to make a passive resistance. The reinforcements, which are being brought up on the line of investment from both sides, come up in a direction unfavourable for the enemy's attempt to break out, that is upon his flanks. The disadvantage, that every army of investment only opposes a thin line to the enemy concentrated in masses, is only apparent. The neighbours of the part attacked form reserves; they are better placed at the side than behind. When the investing army has concentrated upon the threatened point, then it is true that the greater part of their positions round the fortress will at that moment be but weakly occupied. Then it would be possible to break through somewhere, but the invested army is now united and concentrated upon the field of action, and not where the roads are open to it. Before it can face round, the observant besieger can confront it again. The effect of his fire renders it impossible to rush even through a thin line without more ado. Whilst it is resisting, supports can come up.* But rarely will the invested be able to judge when and where the circumstances are favourable for his liberation. Errors and mistakes are very easily possible.

Now, even if the first irruption succeeds, the army has the enemy upon both flanks. Its baggage and commissariat cannot possibly be brought out as well, and without these it is not capable of taking the field for long. Fractions and certain parts may escape, but not the whole army in a state in which it could play a *rôle* in the open.

* The invested army may, it is true, attack with a few corps the place at which it is not intended to break out, in order to allure the investor thither, and then to attempt the liberation in another direction. But the enemy, as a rule, will quickly see through and checkmate this manœuvre. It has greater chances of success if an attack be made with the main army, so as to compel the enemy to collect his troops on one point of the investing line, and then to break through on the other with a corps that has been kept concealed. But in that case only one part is saved.

An army can easily be got behind fortifications, but only with difficulty back again into the open field, except it be that strong help from without lends it a hand.

Weaker garrisons find much more readily a way to liberate themselves, even when surrounded by comparatively superior forces. The best instance of this is furnished by the self-liberation of the garrison of Menin under General von Hammerstein, so drastically described by Scharnhorst: 18,000 men here cut their way through 20,000.*

Among all the relations between fortress and field army, the latter must make it a supreme rule *never to allow itself to be thrown into a fortress.* Even to pass through it is dangerous, because the army may easily be kept prisoner there against its will. But it cannot, under all possible circumstances, be avoided, as in the case of changing from one river-bank to the other, but here, of course, the danger is diminished.

It is always better *to use it as a support,* which enables the field army to keep its full freedom of action. But in such a case the touch must not be an immediate one. The enemy will, generally, take good care not to force his way between an army and a stronghold in its immediate vicinity, even when the road is open to him. In this manner, fronts of considerable length can be covered, which it were otherwise impossible to hold with the number of troops in the field. A fortress of the first rank, with a circle of forts, having a diameter of two to three miles, thus covers a line of front of from four to five miles. The field army which rests upon the fortress is, moreover, in this favourable position, that only one of its wings can be surrounded. It may, from the outset, keep its reserves in readiness there. If the terrain affords besides support, further advantages accrue. Where rivers or valleys converge upon the fortress, the army will be able to choose several of such positions one after another, by wheeling round the fortress with one wing always resting upon it and protected by it.

The army which sees a great stronghold some little distance behind it, ventures a battle against superior numbers, with a lighter heart. Its retreat is, at worst, short, and the destruction can never be

* As to the influence, that the strength of an invested army exercises upon the possibility of its cutting its way through, cf. Blume, *Strategie*, p. 249.

very great. And if it passes through the fortress, and has it afterwards in front of it, the enemy will rarely be able to see whether, and in what numbers, it has left troops there. This compels the enemy to closely watch the place with strong forces; that is, to weaken himself.

Thus will a fortress upon the theatre of war be of much service to the army. The proximity of Metz rendered it possible for the army of the Rhine, on its retreat to the Moselle after the battle of Spicheren, to keep without great danger behind the Nied (française). Only perseverance was wanting in order to bring still greater advantages. Metz allowed Marshal Bazaine to accept the battle of the 14th August with fear; it allowed him to lead back his army across the Moselle, although the Germans reached that river before he did; it gave him, on the 16th and 18th August, a support for his left wing, and saved the defeated right after the battle of St. Privat from being pursued.

That Osman Pasha's less numerous army, had it not been for the adroitly and rapidly improvised fortifications of Plevna, would not have been able to play the *rôle* it did, is self-evident. But in both cases, at Metz and at Plevna, we also see that the proper moment for breaking off connection with the fortress, which is so difficult to seize, was finally neglected by the leader of the field-army, and that the means of safety thus turned to his destruction.

The extension of strongholds by girdles of forts, which are in these days considered to be indispensable accompaniments, has really introduced no new element into the mode of waging war. The idea of "camp fortresses" is an old one, and Babylonians, Carthaginians, and Byzantians have led armies behind the walls of great and populous towns, in order there to continue the resistance which was impossible in the open. Only the dimensions have become different, as have the ranges of the hurling machines, which the attackers employed. A more modern idea is the building of chains of forts, and clusters of forts, in order to block roads and railways. By this means an attacking army can be brought to a standstill, and garrisons tens of thousands strong are not needed. The observation and defence of the battle-field between the forts is thus dispensed with; no town circumvallation behind them need be kept, and yet the enemy's passage will be as effectually pre-

vented as by a great fortress. Such works have always, it is true, considerable weakness. Many single commandants, many small garrisons, work side by side, and, if not the fate yet the advantage of the whole, depends upon the uniform efficiency of all. The possibility of a mistake or a disaster occurring in one place is increased. If, owing to such, a fort should early fall into the enemy's hand, the value of the whole group or line is not, perhaps, thus entirely lost, but will be very considerably diminished. Here is peculiarly applicable what we have said about defence upon a long front. The danger can be diminished by the fact that the field-army places itself in close communication with the works, and thus prevents the isolation, so that the line of forts, with the intermediately lying field-intrenchments gains the same character as the attacked front of a very great fortress. The troops employed to battle between the forts are not lost to the active service, and the danger of investment vanishes. There remains only this danger still left, that the army, owing to the advantages which such support affords him, allows itself to be drawn too much into a *purely passive* defence.

We have already said that the manner of attack upon such groups or lines will be different according to the inclination and character of various armies and generals. To forcibly effect their surrender, here, too, the destructive force of artillery is the sole safe means, as long as a special method of dismantling such bulwarks at great distances has not been discovered. A bombardment of forts, which are at all formidable, with ordinary field-guns does not hold out any prospects of success, as, at the close of the late war, was proved by the cannonade upon the hill castles of Salins. Certainly such masses of heavy ordnance as must be brought up against a great fortress will not be required. But if we reflect that the transport of one single piece of heavy ordnance with the most indispensable ammunition requires nearly 40 horses, the difficulties to be contended with here are not small. In order to get 50 guns to open fire upon a fort, including the mounted officials more than 2,000 horses are needed. The impediment that the army thus loads upon itself is not small, and the assault is really beset with great difficulties.

Bold men in similar cases have dispensed with the aid of ar-

tillery, and, employing the means which the moment affords, have been desirous of storming. They demand of their troops an heroic achievement of the most unwonted kind. Under exceptional circumstances, such a demand may be relied upon, but no rule must be based upon it. Besides, the peculiar "family life" of our national armies stands in the way of the execution of such deeds of daring. The person who orders the storm, and the person who carries out the orders are, as a rule, personages in spheres wide apart from each other. Before a fort, only small forces can be employed on account of the confined space. The written order is issued by the *ober-kommando*, passes through the *general-kommandos*, the respective staffs of the division and brigade, and remains at last in the hands of the infantry regiment forming the advanced-guard, which is deputed to carry out the order. If an obstinate storm does not succeed, it entails great sacrifice of life. But with a loss of 1,200 or 1,500 men a regiment ceases, as far as the campaign is concerned, to play its proper part, for it consists for the most part of fresh drafts. Moreover, the confidence of the men will generally be shaken in the leader whom they saw make the preparations, that is in their own commander, who all the while is, perhaps, quite innocent.

To be wrecked in front of fortifications after storming in vain is, according to my own unalterable views, somewhat less glorious than in open battle in the field. There is, accordingly, danger that the whole affair, if it does not easily succeed, will be abandoned as soon as honour has been satisfied. Who, then, would wish to attempt an undertaking the issue of which is so much dependent upon chance, and in which, if it fails, he may be certain in his immediate surroundings to be considered a butcher, and in wider circles a fool? Storms upon forts, before the thorough work of destruction has been completed by artillery, can only be executed by Argonaut-captains, or leaders, who, following the character of the army in which they serve, may ruin a regiment to-day, and to-morrow may hope, surrounded by a nimbus of rash-daring, to be at the head of another. Where such conditions are wanting, it will, perhaps, be well to depart for once from all distinction of regiments, and to form the storming columns from various bodies of troops, placed under the command of a particu-

larly daring officer, who thirsts for distinction. Or the personal leadership of officers of high rank may give success to this unusual achievement.

Where the gaps are filled by field-entrenchments, the attacker will, in the course of the battle, see the defender bring up not only in, but also between, the forts, guns of heavy calibre. He must carefully entrench himself, gain ground at night and hold it by day. A prostrated battle is the result, that partly is similar to one before a stronghold, and partly is like a field-battle, and in which the well-directed fire of artillery and infantry, as well as before all else the greater tenacity of the troops and their leaders, decides the day.

As such an uncomfortable struggle is avoided by everyone who can possibly do so, clusters of forts and chains of forts will only be serviceable where, from the formation of the country, and the position of the communications, they must be respected by the active armies.

This greatly hampers their employment. They are unsuited for keeping subordinate theatres of hostilities open; for the surrender of a few hill-forts, with a garrison of a few hundred men, can be easily effected subsequently, through diplomatic channels, when the campaign is, in other respects, successful.

An extension of fortificatory works is due to a feeling of weakness. A nation in which a spirit of offensive action dwells will be moderate in their use. He who seeks his safety behind walls and ditches, lacks a sense of strength. More and more will he confine himself to passive resistance, the end of which, at last, is sure defeat, be it ever so much delayed.

SECTION VIII.

LANDINGS.

ALTHOUGH in the Crimea the armies landed on a foreign coast gained the upper hand of the forces opposed to them, yet this was attributable to the fact that the communications of the attacker by sea, were, in spite of all difficulties, superior to those of the defender in his own country. Let us imagine, for a moment, a Russian network of railways in 1854 as extensive as in these days, and 120,000 French, English, Turks, and Sardinians would not have been able to hold their own there very long. The successes of the Federal armies in their descents upon the coasts of the Southern States during the War of Secession are explained by the fact that by a seizure of the harbours the rebellion was at once deprived of its main resources, and that in that thinly-populated country the rapid collection of fresh armies, in order to reconquer what had been lost, was impossible. In a mid-European war the conditions would be quite different. First of all, in a struggle between great Powers here in Europe, the forces are so evenly balanced that no State would care to dispense with a single corps of its field-army, in order to employ it in uncertain undertakings upon distant coasts. This was soon felt by the French in 1870; their landing projects soon fell a prey to the force of circumstances.

"It is evident," says the German scheme of operation for that war, "how important it is to turn to account the superiority we possess at the start, even alone in the North German forces."

"This will at the critical moment be materially enhanced when the French undertake expeditions against the coast of the North

Sea, or against South Germany; to repulse the former we have sufficient forces still remaining in the country."

This conception will be true, more or less, of every mid-European war.

The fruits of landing-expeditions will but rarely counterbalance the disadvantage entailed upon the field-army by the weakness caused in its ranks by the despatching of expeditions. Before a corps, landed on the enemy's coast, can point to considerable successes and can spread itself greatly, before the fleet has taken a number of places on the coast, its freedom of movement is very small. Only by daring and surprising advances can it equalise these deficiences, but for this purpose it lacks cavalry. Of this arm an army landing on a foreign coast requires much, so as to reconnoitre rapidly in all directions, to destroy railways at a distance, and to check the approach of the defender, who is collecting on all sides. But horses are, of course, more difficult to transport on shipboard and to disembark than men and *matériel*, and there will therefore always be a lack of cavalry.

The military system of the great European nations is, in these days, so far prepared for action, that even when all field and field-reserve troops are already engaged in battle on the frontier or in the enemy's land, a considerable superior force can be quickly raised to resist descents upon the coast. Numerous drafts have not yet taken the field and are available in their depôts. Great inland fortresses, which are not threatened by the enemy's field-army, can furnish strong compact bodies of troops. Improvisations and calling out the Landsturm are demanded and will make good progress when the native soil is in evident danger. The telegraph and the railways, not impeded in their fullest development, bring up forces from the most distant provinces. True, the attacker can also reinforce himself by bringing up a second army corps; but before it arrives a considerable time has elapsed, and the fate of the first will, by that time, have been decided. Landings and operations on coasts have accordingly not only to contend with great difficulties, but have generally but little prospect of any great success. Therefore they can only be undertaken under especially favourable conditions.

To them belongs, first of all, a superfluity of strength. If Germany were attacked simultaneously by two great Powers on the East and on the West, their fleets and armies combined could certainly find sufficient means for undertaking a descent upon our coasts in strength commanding respect. It would be possible that the movements of the landing army could be brought into connection with those of the field army of one of the two allies. Its prospects would thus be considerably enhanced. If Denmark, in 1870, had been arrayed on the side of France, France would have been able to land troops upon the easily accessible east coast of Denmark, and, in combination with the Danish forces, to undertake an expedition against the Lower Elbe. The lack of cavalry, which makes itself so sensibly felt, would have been supplied by the Danish horse; and the allied army would have been able besides to be considerably increased in point of numbers. The whole of the Danish monarchy would have served for a base of operations. But, under such circumstances, the character of a landing-expedition is lost. Besides, only one part of the whole hostile forces has been able to take up its position, and then only by the aid of sea journeys.

It will always be prudent, in order to gain some freedom of movement upon the enemy's soil, first of all to subject the coasts in considerable breadth. An island lying close off can afford the possibility of safely disembarking and collecting troops, but here again the surprise is lost.

The defender gains time to take precautions. It appears that operations from the coast, penetrating far into the country and directed upon important objects, or with decisive intentions against the capital, are only possible on a great scale when a long war has completely exhausted the energies of the State attacked, and when its last resources in men, horses, and weapons, have been consumed in withstanding the hostile land forces that have penetrated into the country across the frontier.

An attempt can certainly be also made immediately at the commencement of the war, when the concentration of forces has not yet been completed. "A French descent upon our coasts, if it was really intended at all, was in all probability to be expected in the first stage of the war, as such extensive operations must of

themselves be seen to be impracticable as soon as we had entered upon French soil," we are told by the work of the General Staff, 1870. Such descents have rather the character of alarms, intended to impede mobilisation, and disquiet the people, than as a serious attack.

Upon the masses a certain impression will always be made, when the enemy, who is known as being beyond the frontier, suddenly appears on shipboard upon the coast. But let us suppose an army of 40,000 to 50,000 men thrown by surprise upon that portion of our coasts in the Baltic lying nearest to Berlin, that is at the mouth of the Oder,* and that an advance was begun; the five or six days which would be required to reach the capital would suffice for throwing superior forces against it.

Descents on the coast are, accordingly, in the case of a populous State with a good military organisation, rather bugbears than real dangers.

* Not to mention the difficulty of landing just in that place.

SECTION IX.

COMMISSARIAT SUPPLIES AND FRESH DRAFTS IN WAR.

WHOEVER finds it inconvenient to give his attention to questions of commissariat in war, can refer to Napoleon's unwilling exclamation, "Do not talk to me of provisions!" But the matter wears a different complexion when we observe the Emperor's conduct in his various campaigns. He evinced, at all times, extraordinary care for the measures to be taken to provide for the sustenance of his armies. Certainly he did not adhere to any fixed system, but took the means of nourishing his hosts just wherever he found them. He knew how, by promising high payment, by his dexterous treatment of authorities and communities, as well as by threats and brute force, to furnish himself with supplies; even in exhausted and poor districts. When there was occasion for it, to use his own words, he put the land on both sides of the road on which the troops were moving, under blood and fire, so as to squeeze provisions from it. As he understood how to stamp armies out of the ground, so also did corn-fields grow upon his open hand. But before all things he was a master in organising his lines of rear communication; and purchases, transports, requisitions, magazines, and compulsory provisioning by the population, all co-operated to fill his soldiers' bellies. In Russia he came to grief, because circumstances there were superior to the man. His saying must not, accordingly, be taken to mean that the General must not busy himself with commissariat matters, but only that considerations of sustenance must not control, but be subordinate to, those of the employment of the troops. The great ends of the war

must be prejudiced as little as possible by anxiety for bread, and for this purpose every source is welcome which can be struck out of the rock—that is what is meant.

The martial right of armies to take from the country all that they require for their sustenance, is very ancient. Moses, in sending forth spies into the Promised Land, referred them to requisitions with the words, "Be comforted and take the fruits of the land." In the Thirty Years' War, this practice was in vogue to a disastrous extent in Germany. In later times, it was suppressed by the marvellous influences which the development of the political and military systems spread about them. The Great French Revolution, with its train of altered views of right and political ideas, reintroduced it. It placed, for the purposes of war, at the free disposal of the *de facto* lords of a country the resources and energies of all countries they controlled.

Thus the principle, "live from the country," came back into the doctrine of warfare, and we adhere to it in these days to such an extent, that we regard all the supplies brought up to the rear of an army only as reserve-supplies, which are there for cases of urgent need, when the theatre of war can no longer yield what is requisite. But in this very particular we are just at present undergoing a change, which will be even more marked in future wars than it was in 1870–71.

By the expression "live from the country," we have naturally an *enemy's country* in view; in our own, the most essential advantages which it imparts disappear.

In ancient times these were not sought in the circumstance that the troops were more mobile and independent, but an army clung, even then, to the magazines, whence the resources of the theatre of war were taken. The most important thing was considered to be that the enemy was damaged, whilst to the invader's country there accrued an indirect increase of its resources. Frederick the Great, in 1756 and 1757, took good care to let his armies live from the enemy's country, without thinking of gaining freedom of action for distant excursions. He merely intended to provision his troops for a time, without paying so much for it as in his own country. He wished to keep his money in his pocket, to spare his slender exchequer, and thus to be enabled to carry on the war

the longer. In reality, the supplies brought together by taxation* were, considering the smallness of the armies and compared with the trifling sums exacted, considerable. At times, the army may have lived without expending a thaler, or bringing a sack of flour across the frontier. In the seventeenth century, it was the rule in war to subsist gratis, and neither Thurn, Mansfeld, Christian of Brunswick, or Wallenstein had a well-ordered exchequer at their disposal in order to maintain their armies. They acted to its fullest extent on the principle that war must live from war.

Now-a-days when armies and the daily expenditure of money are reckoned by millions, all that is changed. The supplies hastily collected on the march, or by exactions, are insignificant, as far as a saving of money is concerned. Though the troops do temporarily eat and drink at the neighbour's expense, the quarter-master-general's department cannot on that account suspend its activity, nor the State coffers be closed. Considering the precautions which the commissariat for such large masses of men demands, it is not possible to wait to see if anything can here or there be found in the country before making the calculations, but the whole supplies for the whole army must be secured by the State for each day. Just as a great household is carried on on the same scale, whether or not one or other of the family is invited to dine at another house, so must the supplies flow continuously for the full number of men and beasts, without considering whether or not one or other army corps chances not to be in need of the fresh supplies. The result will generally only be that the troops for a time live better, that is, consume double. Much is spoiled or lost.

Everyone knows, again, how difficult it is to procure even 100,000 francs in a foreign country by levying contributions, and that is not one-fiftieth part of the daily expenses of a great army. Even forcible exactions are no longer of any appreciable account in respect of reducing our own expenditure.

In order that the ends of the war may be pursued without hindrance, it is of enormous importance to it when the army finds in affluent districts of the enemy's country provisions enough to main-

* For the requisition system of modern practice was not employed

tain itself temporarily wherever it goes. But it must be doubted whether this fact has any considerable or permanent effect upon the finances of the State.

If we live upon the enemy's country, we mean that the enemy is not in our own, and that our country is not suffering under the presence of the belligerent armies. Its taxability and its credit are not nearly so much diminished as would be the case if a part of its territory were covered with troops. But the thought that could be indulged in in the seventeenth and eighteenth centuries, that it were possible to force an enemy to yield by carrying the war into his country, has in these days become considerably modified. As we have before said, the possibility of holding out does not depend so much upon whether we are on this side of the frontier or on that, as upon the international credit we enjoy.

In another respect, also, the meaning of the standing phrase, "live upon the enemy's country," is changed. Even Napoleon, in 1812, did not lead as many combatants into Russia as we, in 1870, did into France. In the future, the figures of 1870 will be outbid. Such huge masses of men, which, consuming everything like locusts, pass over the country, can only for a very short time be maintained upon the supplies which are found scattered about in households. Let us take the case of a small country town, which is unexpectedly called upon to provide for 4,000, 5,000, or 6,000 men. That will go for one, two, or three days without difficulty, but not for weeks. The way the soldier lives in the kitchen and cellar of his billeted quarters is not wont to be very economical. Much is only consumed and used up without being properly utilised. Thus, the supplies become exhausted twice as rapidly. And thus we are compelled, not out of pedantry and a desire to restrict the operations of war unnecessarily, to fall back upon our stores. Only it is erroneous to speak, in these days, of a magazine system, for our modern commissariat is characterised by *want of system.*

The peculiarity of a magazine system was, that it bound armies to certain points, from which they only unwillingly separated themselves, and then only for a certain number of marches. This is, conceivably, no longer the case, and any similarity with Frederick's times is purely contained in the term "magazine." The difference

moreover, lies not so much in the new idea as in the modern system of State finance. If Frederick the Great had been able to float loans on the Exchange, and had, at the beginning of the Seven Years' War, had 180 million, instead of only 18 million thalers at his disposal, with the prospect of being at any time able to effect a new loan, he would probably have acted as we do in these days, and his mode of carrying on a war would have been of a perfectly different type. A full exchequer may be worth an army corps, and a financial authority at the side of a commander-in-chief equivalent to a first-rate general; for money is the magic wand for all the needs of an army. Modern warfare, with its principle of an uninterrupted and regardless employment of all combatant forces, would scarcely be conceivable without subscription loans, by which alone the requisite funds are procured.

The increase that has taken place in the armies of the present, renders all proof as to the vital importance of good commissariat arrangements unnecessary. The increase of population which is caused by the massing of the troops in the frontier provinces defies any parallel in times of peace. In spite of the free disposal of pecuniary resources, the commissariat question is still more vital than idealists, whose fancy indulges in schemes of bold marches on paper, would have it, and who, of course, dislike any clog being put on their wheel. Clausewitz teaches: "The provisioning of troops, in whatever way it be effected, is always of such difficulty that it has a very decisive voice in the choice of measures; it often counteracts the most effectual combinations, and compels us to look about for sustenance for the troops, when we should prefer to look after a victory and brilliant successes."

The Franco-German War was waged in a very rich country. The military authorities displayed the greatest activity; they acted without solicitude and pedantry in respect of the employment of all useful means; and yet periods, though certainly only short ones, supervened, when the troops were in actual want. In comparison with former wars, we may rightly congratulate ourselves that, in 1870, necessity never attained such an extent as to impede the military movements in any degree worthy of notice. In this feeling of self-congratulation lies the tacit recognition of the great

difficulties, with which the commissariat of an army has, even under the most favourable conditions, to contend.

When our troops were concentrating in the Palatine, it was seen to be harmful that only troops and no baggage and commissariat columns were at first despatched to the frontier. Yet, considering the surprisingly rapid initiative on the part of France, which threatened a rapid and powerful offensive on the part of the enemy, this should have been considered necessary. Not merely these transport columns were left behind, but even experienced contractors, to whom the military authorities had entrusted the duty of massing considerable supplies in the districts where the troops were collecting, found themselves incapable of delivering their stores at the proper places, because the railways were blocked. As they were only paid on actual delivery, it was natural that they should mainly despatch articles on which they earned most; and, in consequence, of some things there was a superabundance, whilst of others there was a deficiency.

In spite of the prosperity of the Palatine, and the self-sacrifice of the population, it was here seen that "living on the land," when modern armies concentrate, does not mean plenty. Tradesmen's stores were still less sufficient than they would have been, because of the fact that contractors and administrative officials were at the same time making great purchases in those very districts on the frontier.

In the course of the rapid commencement of the operations and their hurried continuation upon French soil, it was seen that the assumption, that the commissariat columns would be able to bring up all necessaries direct to the troops, would not hold water. Small, rapidly-moving, and serviceable trains, to be bonds of union between troops and columns, were perceived to be a necessity. The hopes, too, that the field-bakeries would be able to do the slaughtering of the herds, and supply the troops continually with fresh meat, without their having the trouble of doing it for themselves, were doomed to disappointment. The capabilities of the arrangement had been in general over-estimated in consequence of the experiences being so old-fashioned. Bad experiences were made, as is known, with the bringing up of great herds of cattle, on account of insufficient fodder on transport. The military admini-

stration did not lack officials, but hands. And then the industry in preserved meats was not in 1870 so far developed as was requisite to satisfy the demands of modern warfare. The pea-sausage that attained to historic fame was a very primitive make-shift of the sort. Finally, in the restoration of interrupted communications, particularly on the railways, as well as in temporary constructions, not nearly as much was done to give the armies good lines of communication as we expect will be in the future.

Attention to these points will enable us to perceive in what direction we must move in the future, and on what a scale the commissariat of armies will eventually be organised.

The provisions which are best and, at the same time, most agreeable to the soldier, are always those that are fresh. He is accustomed to them; they taste best to him; they are also, when properly changed, the most healthy. Fresh beef and mutton, with all sorts of pulse,* rice, potatoes, sauerkraut, rye-bread, and, for a change, bacon, if it can be served out winter-smoked and in a state of good preservation, deserve preference. Slightly salted† and smoked meat is also serviceable.

But fresh provisions have this disadvantage, that they take up a comparatively large space, that they easily go bad, are difficult to keep, and are difficult to cook. The soldier, who ought only to carry fresh provisions for three days with him, would almost fill his knapsack with them, even if the bread was replaced by the ordinary army biscuit. How unappetising bacon, meat, &c. would be after a long journey, packed amongst other things, is self-evident. The care which, at the outset, is expended in keeping it, naturally disappears more and more in the course of the martial excitement and haste of the campaign. If the sun scorches, and dust penetrates to the meat, it becomes quite spoiled. The end of the business is, that very much will be thrown away. Besides, hours are needed to cook it, and frequently the soldier unwillingly de-

* Which should always be given split, so as to be quickly boiled.

† Of salt meat, that has been "tubbed" for several months, the nourishing elements have all been drawn out into the unpalatable salt, and the meat is left quite without nutritive powers.

clines to eat it, when the meat, which is perhaps too fresh, remains, in spite of all his exertions, hard and tough, and the vegetables unpalatable, when wind and rain have upset the whole cooking experiments, or when clouds of dust sweep over the camp and kitchens. How often does it not happen in war that, just when the water has begun to boil in the pots, an alarm is raised, and a start must be made. No attempt to cook fresh provisions should be made, unless it is certain that the troops will be undisturbed. Artificially-prepared provisions are, accordingly, an excellent make-shift. They take up but little room, and are not nearly so heavy as the fresh, so that the soldier can carry far more without being burdened by a greater weight.* A handful of compressed coffee-squares, or a few bars of compressed soup and vegetables, thrown into the knapsack, do not inconvenience, and in the hour of need they can afford refreshment and nutriment for a considerable time. Nothing is required save boiling water, for all the various condiments have been already added to the small bodies. A few minutes are sufficient to prepare them, and their preparation requires no knowledge or especial dexterity. The food remains clean, and does not become bad. Packing is unnecessary, as the preserved provisions are all delivered in tin boxes, and in other safe cases. The tinned meat, the meat-biscuit, the portion of compressed vegetables, &c. may even far excel the fresh provisions in nutritive powers. The extraordinary ease with which they can be transported and used makes these preparations of all kinds quite indispensable to future wars. The soldier is enabled to live for a number of days from his knapsack, in case he does not find sufficient for his wants in the country. This may be of quite vital importance in the future, when great masses are quickly concentrated or, under specially trying circumstances, where the enemy commands the lines of communication by his forts, as, for instance, where we have, perhaps, broken through a chain of fortifications in order to engage the enemy, and the commissariat cannot come up behind us. In such time, masses of men such as we have conceived of can no longer be provided with fresh bread, biscuit, fresh meat, bacon, and rice, or even with peas and coffee. For the

* The weight of a ration, in fresh provisions and biscuit, for three days, is 855 grammes (2 lbs. English); in a preserved form, only about 630 grammes.

horses, too, artificial food is employed with the best success, and this renders the cavalry capable of undertaking bold and far-reaching operations. We must, in the future, avail ourselves as energetically as possible of the valuable means of being able to render ourselves for a considerable time independent of commissariat trains. An element of superiority is therein contained. What a *rôle*, even since 1870, in spite of their incomplete form at that time, preserved provisions have played, is proved by the fact that forty million rations have been served out to the army on demand.

Preserved meats are dear, and, when used for any great length of time, nauseous. Besides, they cannot be readily procured everywhere. Private industry cannot, of course, in time of peace, be ready to provide at the right time the enormous demand of an army in the field. It is a very useful measure of our army administration to keep a State manufactory, the origin of which was due to the initiative of the *Ober-kommando* of the army of occupation in France.* It would, of course, be a mistake to resort entirely to preserved provisions; they can never, not even for a lengthened time, replace fresh ones. But they are of inestimable value for the first period of the rapid concentration of the armies on the frontier, and, again, in the course of the campaign, in cases of emergency Nothing must be left untried that can in any way promote the ends of the war. What would Napoleon have given to possess such means of provisioning his troops in 1812, or in the critical days of 1814?

The *nature of the provisions* will, of course, be different according to the financial and commercial conditions obtaining in the various countries, as well as to their means of transport. We leave what is in vogue here or there, which would take up more space than were good to enlarge upon, and endeavour to describe the method which appears to be best suited to a great European civilised State.

* This institution might also be advantageously employed as a school of instruction for the administrative officials. In the campaign of 1870 the necessary knowledge requisite for the preparation of preserved provisions, or even for slaughtering animals, was much lacking. Many commissariat officials were certainly compelled to undertake the slaughtering of cattle in the field who had never seen an ox killed in their lives.

The military administrative authorities — the Quartermaster-General's Department—cannot, in our days, afford to dispense with the help of private persons at the immediate outset of a war. This is due to the simple circumstance that the former, entirely engrossed in time of peace by their duties, which lie in other spheres, are not capable of knowing the commercial conditions, and of maintaining the connections which the latter control. Otherwise, every Quartermaster-General must also be a merchant. Only the practised commercial man knows where to lay his hand at the required moment upon the amount of supplies that the army needs. It was a failing of the French army administration in 1870 that, though possessing a tremendous organisation, it was purely dependent upon it alone, and could not reckon upon the support of the civil authorities. It had quite disaccustomed itself to such an arrangement. It was bitterly condemned by French military writings soon after the war, that a French general in command, under pressure of extreme necessity, had resorted to the most natural and sensible measures, and opened markets with the assistance of the civil authorities. It was quoted as an instance of how far the confusion had reached. In these days France has become more clear-sighted, and calculates in its carefully-organised commissariat-system upon the co-operation of the civil authorities and free purchase by the troops.

But private assistance must be regulated. Hitherto it has, for the most part, on the outbreak of a war, been customary, for the Quartermaster-General's Departments of the several divisions of an army,* to conclude contracts with purveyors, who are known to them. Only dealers were engaged who knew the business very exactly from long practice; the novice would have soon come to grief. But those gentlemen knew full well what command they had over the market; they understood full well that the goods must be delivered for the war, like gunpowder and lead, and, accordingly, that they could, as a rule, charge what they liked. The anxious money question—which is the main thing in times of peace—vanishes in war time. Provisions at once become double the price. Besides this, the purveyors needed money to an extent

* Army corps.

that was almost unnatural to them. They were bound to provide the goods, and, as money in war is the dearest of all, a prudent man was wise in reckoning an additional 25 per cent. for this alone. If the other expenses, which are not inconsiderable, the chance losses and a decent profit, be also reckoned, it is easy to understand that the State had to pay 50 per cent. more than the goods, properly speaking, cost. The purveyors of the several divisions of an army sent out their agents. Everyone believed that he alone knew the best places for buying, or, at all events, was more exactly acquainted with them than another. But at last they all came together in great numbers at the same place. A race in bids took place, as between the travellers of two houses, who wish each to oust the other. The State made for itself the most dangerous competition. That all the subordinates and underlings of the contractors would personally live well is pardonable, considering the magnitude of the business. And so the most fashionable hotels in the large towns were filled with persons who were otherwise unknown there, and the patient commission laid fresh burdens upon itself. If what was to be delivered had been procured for a round sum, the next thing was to transport it to the scene of war; for the careful authorities only paid on delivery. If the railways were free from the great military-transports, the race began here again. What impediments were in the way of contracts being completed, and proper control kept, need not be explained.

These conditions which existed in 1870, at the outbreak of the Franco-German war, and which made themselves very sensibly felt, must not repeat themselves in the future to such an extent. Before all things, provision will be made for confining the activity of private contractors and surveyors to a sphere of action where, without interfering with their energy, control is possible. They must not for the future come too close to the army. As one measure for remedying matters in this direction, where all difficulties arise from the enhanced demand, it would appear to be practicable to designate, in time of peace, in the more important towns, for the supply of provisions, experienced officials who cannot any longer be utilized on active service. But they must be allowed certain liberty, and they must be relieved as much as

possible from small professional duties, in order that they may have both time and opportunity to prepare themselves sufficiently for their important functions.

If it is impossible to employ such officials; it is still possible to appoint respectable merchants as agents of the State, for the effectuation of considerable purchases in return for a commission. The widespread belief that by so doing the door is opened to peculation, is not generally justified. That old-established and respectable business-houses, to which alone resort would be had, would reckon higher prices than they actually paid, is quite as inconceivable as that their partners were thieves. The malpractices of an agent who works for commission are most sternly condemned in the commercial world. It is, of course, not an easy task to control and overlook in their commercial dealings such agents, when, like almost all high officials, the authorities for the purpose are exclusively accustomed to work in the bureau. But for this purpose the military administration can organise a technical board in the form of a council of ambitious merchants of fame, who bind themselves, in return for adequate compensation, to support them in making their purchases. Men who disdain to identify themselves with the business of an army-purveyor, that is always somewhat dubious in the eyes of the people, would certainly be able and willing to act on such a technical Board, as on the breaking out of war all trouble undertaken on behalf of the army would be regarded as a patriotic action. These authorities would be best able to designate the proper agents for the several towns, and to suggest measures for controlling and superintending them.

Every use made of a foreign market, as a rule, injures, though indirectly, the enemy. Could we, by paying for them, have had the resources of England at our back, when France had no longer any communication open with that country through Belgium, Gambetta's resistance in 1870–71 would have been of but short duration. But here, too, there must be a uniform and prompt organization. In the late war, the agents of our great contractors competed with each other in London, Antwerp, and Rotterdam, as in the great industrial centres of Austria and Hungary, to the detriment of the State treasury.

In this department likewise the Board of Trade will be able to

give the military administration the best hints. But its constitution, as well as its whole functions, must be determined upon betimes; business connections which are only entered into on the outbreak of hostilities, render only late services. It is, at all events, necessary for the wars of the future that a scheme of the supply-system shall be drawn up on a large scale, like the plan of operations, dealing not only with the purchase, but also with the bringing up of enormous masses of provisions.

A very material support is furnished by the peace-magazines of great garrisons, which are now possessed by every division. If we assume that in them supplies for three, four, five, and six months for the division on a peace-footing are kept stored, they suffice also for the division on a war-strength for a considerable time. It is, perhaps, sufficient if a whole army corps is supplied, at all events, for a few days. The Administration of these magazines* has, of course, permanent connections in the country, which render it possible for it to buy up quickly and freely great masses of provisions. Besides, these connections are confined to a fixed district or province, and do not extend into the sphere of another administration; so that in this way all that injurious competition formerly indulged in by the private purveyors is avoided. These great peace-magazines will provide, as depôts, for the uninterrupted supply of provisions.

But their administrations can only be employed with advantage for the delivery of such supplies as they have ordinarily had to procure in time of peace. Their business connections only suffice for these purposes. They are not in a position to undertake to furnish valuable help from distant parts or from foreign countries.† For this business, agents and leading commercial guilds must be employed. In addition to the commission-agents, it were well, especially for orders from foreign countries, to appoint transport-agencies. It is not impossible that in certain cases it will be proposed that the goods be delivered by particularly capable general contractors, in the old fashion. There is, beyond doubt, great convenience on its side; but these persons will no longer be allowed

* Proviant-aemter.

† The Commissariat effectuated by these Boards is generally known by the name of "Konsortial Verpflegung."

to deliver their goods upon the theatre of war, but only in depôts or magazines.

If, in one or the other way, the sources whence the army shall draw its commissariat have been kept well-supplied, special measures will next have to be taken for the scene of hostilities.

So far as the consideration of the rapid concentration of the troops permit, commissariat-trains should be run between the trains conveying troops on the railways. And then, again, experience has taught us that trains conveying troops can at the same time carry with them not inconsiderable supplies of provisions, without any difficulty being thereby caused. It is, accordingly, possible to order the troops to have by them on their journey supplies for several days, and to take them with them also into the district where they are massing. Provisions for from three to six days would seem to be the proper amount. Here preserved provisions are especially in place. It is absolutely necessary for the troops always to have these with them; for in the confusion of mobilization, especially in small garrisons, it will be impossible to effect purchases with the slender money-resources at disposal. The more the troops are dependent upon their own cooking, the more necessary is it that they should be provided with the requisite amount of preserved provisions.* On leaving the railway, the supplies they have taken with them will be loaded upon hired waggons or upon carts requisitioned in the country, and conveyed to the front. Better it certainly is, if the troops, instead of the ordinary market-carts, had good, light waggons, well-harnessed, and specially built for the purpose, for they travel faster, cause less delay in the columns, and carry more.

Thus, then, do the troops, protected against their first hunger, arrive in the massing district. It must be permitted—nay, made a positive duty—to make purchases here at will, wherever opportunity offers.† A superfluity serves at once to establish a depôt.

* Though good preserves may keep for years, it is all the same advisable to renew them from time to time either by consuming or replacing them, if they are to be agreeable to the taste. The fatty substances always suffer to a certain extent by age, and then are readily nauseous.

† If it seems to be possible for a time for the quartermasters to provide the commissariat by ready-money payment, it will, of course, be forthwith resorted to.

As the trains and the transport-columns are not yet at hand, carts hired or requisitioned take their place at first, in order to work the communications between the magazines that are being organised. When they are no longer needed, they are made over to the train authorities, in the rear of the army. One good quality of such rude and improvised conveyances is that they can be used up until they give way, and then, when they are not required any longer, left anywhere. Often another takes possession of the wreck and makes some use of it. In the late war, when the regulation ambulance and transport-waggons were wanting, the Quarter-master-General of the IInd German Army often successfully availed itself of such improvised conveyances. This department procured at once for each army-corps a park of 400 waggons, and afterwards frequently repeated this measure.

The military administration, moreover, despatches its officials, furnished with considerable sums of money, and accompanied by experienced merchants or agents, to effect purchases in the country round about the district where the troops are massing, for the organisation of depôts—provided the roads of communication permit of such an arrangement. If the railways are not convenient for the purpose, transport by water must be utilised. A small barge, such as is used on the Spree, can load 1,000 cwt. A great army, of modern dimensions, consisting of 800,000 men and 300,000 horses, requires in three weeks, besides hay and straw, 2,000,000 cwt.; hence, 2,000 such barges would be required for the purpose. Such a number was in 1870 certainly available for the purpose upon the water-ways in connection with the country in which the troops were concentrating, viz. the Rhine, the Main, the Ludwig canal, the Upper Danube, and the Moselle, without, however, their being utilised to the fullest extent. Tugs accelerate the transport.

As the field-bakeries are not adequate, private bake-houses of all kinds are set to work on a large scale, and are furnished with an increased number of hands.* Either flour is served out to

* For this purpose the administration of the IInd German army employed women frequently with great success. Female hands are in such moments easier to procure than male.

them, and bread manufactured for pay, or the baking is done independently, by order of the military administration.

Cattle are bought up on the spot, for they suffer much on transport. It happened in 1870, that the cattle fell off so much, in consequence of bad fodder, that they produced only 41 per cent. of meat, as against 59 per cent. of bone. If they have to be brought up from a distance, special arrangements must be made. Stable-room will rarely be found where wanted, especially not at the railway stations. Transportable barrack-stables, which can rapidly be put together, are useful, but the organisation of experienced butcher-columns is necessary. Moreover, it is not advisable to keep great herds together for any long time; they easily engender and spread pestilential diseases. It is better to quickly distribute them in small quantities among the troops and columns. Some cattle-depôts must be established at convenient centres, in order that from them what is not found at the scene of hostilities may be conveyed to the front.

The armies and army corps make like arrangements for their several spheres as does the administration of the army for the whole. The officers of the General Staff who hurry ahead in order to assist at the disentrainment of the troops, are accompanied by officials from the Quartermaster-General's department.

Like the troops, so do the depôts advance at the commencement of the forward movement. All means of conveyance must again be resorted to. All depends upon practicable transport-roads being opened. The most important are the rail-roads, which have been again opened for traffic, after extensive improvements have been effected in the country where operations are being conducted. The greatest progress has been recently made in the laying of small-gauge lines, the trucks for which are taken from neighbouring mines. The laying of tramways on good wooden sleepers may be serviceable in an open country, which is poor in railways and trunk-roads. On the other hand, steam-power upon good artificial roads permits of great weights being transported all at once. Freight-cars drawn by locomotives may also be employed. A wide field is open for the inventive brain of our engineers. All the train behind the army procure means of conveyance and transports of every sort and kind. The further towards the front

the lighter and more mobile must the organisation be. The last limb of the army equipment is the well-horsed commissariat.

If, accordingly, we view the organisation of the Commissariat train as it might be described generally, we get the following picture:—*

At the rear, in the country, are the reserve-depôts scattered about in all the provinces, procuring the supplies for certain divisions of the army. They forward, on the railways, their goods to the great collecting centres (Sammel-magazine). As soon as one load has been despatched, a fresh one, as, for instance, supplies for two days, is at once packed and got ready for forwarding.

Collecting-centres will generally be made at great railway-junctions,† which, however, lie in our own country, at a great distance behind the army, and thus in perfect security.‡ These places must, besides, be of such a nature that they offer no impediments to the extraordinary traffic which is being carried on. Towns with narrow streets, and fortresses with narrow gateways, are not suitable. Much open space is imperative. Roomy buildings are good. Such are made the principal depôts for the armies. Not merely the supplies brought up from the reserve depôts are stored in them, but also those that have been brought up by agents, as also those that come from the State manufactories. Herds of cattle can also be accommodated at the collecting-stations, and bakeries and workshops established. Supplies sufficient for five or six days must always be kept in store.

From these stations the requisite supplies will be forwarded to the front, so far as the railways can be utilised. Where they stop, or where safety ends, are train-depôts,§ to which, of course, spacious and well-situated railway-stations must be assigned. In these, again, supplies for two or three days will be stored, while at all times fresh relays are on the way from the collecting depôts, so

* *Cf.* also Meckel, *Taktik*, p. 25 seq.

† If possible, on the water-ways as well.

‡ For the IInd Army, in 1870, during the investment of Metz, the town of Neunkirchen, on the Rhein-Nahe-Railway, was fixed upon as a collecting-depôt.

§ For the army of investment before Metz, the station Remilly was such a depôt.

that one day's provisions may always be assured to lie between these two points. From the magazines of the train-depôts the provisions will be despatched to the front in every possible way. If the army is far distant, intermediate magazines will be organised. Thither come the commissariat waggons, in order to fetch the necessaries for their respective corps. They will not, however, as a rule, follow them into their quarters, or into the camp, but take up their place between the troops and the magazines, whence so many empty convoys return and as many go forward as are required by the troops. They cannot, however, be divided up in such a manner that some go right up to the regiment and battalions in order to unload. These latter must, accordingly, have their provision-waggons, which meet the train-columns at a certain rendezvous in order to fetch their necessaries. Frequently, just here is the hitch. The movement is impeded by the proximity of the army. Country waggons that have been pressed into the service under little surveillance are not of much use. Army conveyances are beyond doubt preferable, but they increase the baggage-train, unless, as is quite possible, by dispensing with the market-carts, a saving in incumbrance can in other ways be effected.

The French army has a small train for for each regiment, consisting of strong, well-horsed "fourgons," which, with two high wheels, can easily surmount ditches and other obstacles, and appear to be very serviceable. Such small, rapidly-moving trains, belonging immediately to the several regiments, are, together with preserved food, the best means of making armies temporarily independent of the great commissariat system and its cumbersome waggons.

Some difficulty is always experienced in the unloading of railway-trains and other conveyances. In the immediate vicinity of the railway-stations, proper warehouses for storing the supplies are often wanting. Trifling as this circumstance appears to be, it is, all the same, very important. In 1870, great quantities of supplies were spoiled by the rain all alongside the railway from Strassburg to Frouard, and from Bingen to Metz. There frequently arose the necessity for unloading the trains, only in order to get the rails clear and to empty the trucks. Tents and materials

for building barracks are indispensable, yet it must be observed that the damp, which rises from the ground, is often quite as bad as that which falls from the sky. Waterproof bottoms must also be provided. Hands are difficult to procure. The commissariat troops are employed on sentry and escort duties. The active army rightly hesitates to tell off troops for subordinate duties. Labour is, moreover, in the highest degree disagreeable to the soldier. He feels that he is not there for that purpose, that his duty is only to fight. Besides, his deficient experience makes itself felt. The work done by men told off from the regiment is, as a rule, very little. A company of porters, on the other hand, organized in 1870 for the clearance of the choked and over-worked railway section Nancy–Ars sur Moselle, did excellent service. Such matters also must be pre-arranged.

The sketch I have here given depicts only in mere outline the baggage-system of a modern army. The working is not by any means strictly confined to the lines I have drawn.

Goods trains, fleets of barges drawn by tugs kept ready in the proximity of the collecting-depôts, form movable magazines. If a halt is made at the front, a block must necessarily take place in the supplies, if the forwarding is vigorously kept up. The intermediate depôts grow by degrees into great provision centres. In the front, among the troops, small retail magazines are established, from which the soldiers immediately draw their supplies.

In addition to the regular means of transport, irregular conveyances are employed, which are raised where required and abandoned when no longer wanted. Besides what he receives from the magazines, the soldier avails himself of the means which the land affords, sits at the table of the host in whose house he is billeted, and investigates his cellar. All obtainable supplies are seized or bought up. When there does not appear to be anything left, and force is no longer of avail, money will always procure something. When the quartermaster's department of the IInd Army established markets in Beauce, situated north of Orleans, where troops had been continuously quartered since the beginning of October, and, as no foraging could procure anything, offered high prices and thus aroused the desire for barter and sale, it was suddenly discovered that there was no lack of provisions, but only of

casks to carry them away. Sewn up in window-blinds, in beds and furniture-coverings of all sorts, and in baskets and in boxes, the peasants brought in the oats that the army needed, and at last the supply enabled prices to be lowered.

The whole working of the commissariat of an army is characterised by great freedom. The system is perfected by careful consideration, and by the regardless utilisation of all the means at hand. This regardlessness must not only extend to the money question, but also to the pressing into the service of the army all officials and private persons who can be of any assistance in aiding in the great task. Even the best quartermaster's department, dependent entirely upon the activity of its subordinates, must inevitably come to grief.

He who, according to directions, calculates the needs of the army in the field by pounds, and provides for it according to the most careful dispositions, certainly will scarcely ever run the risk of a portion of the supplies he has furnished being spoiled. But the army will suffer by this arrangement. Even the most correct measures do not, in this case, any more than in the employment of the troops in the field, guarantee with complete certainty the desired result. Experience teaches us that it is never compassed. Twice and three times as much as an army needs must be supplied, if it is to be kept from want; double and treble in respect of the good quality of the provisions, double and treble in respect of the quantity. He who relies entirely upon foraging is lost, even in the richest of countries. He who builds his commissariat only upon his supplies from the rear, will have but little success, even when he has the very best railway communications and a well-organized system of carriage at hand, and the country in his rear is prosperous and wealthy. All must co-operate: coercion in the enemy's country, and free purchasing by authorities; buying by the troops in their own country and in the theatre of war; requisitions and provision made by agents and merchants; utilisation of railways, canals, and trunk-roads, the train-transport, the commissariat waggons, the provision-carts of the troops, and rapidly-laid small-gauge lines and tramways. Permanent and independent field-bakeries, which are severally distributed among the troops in order to provide for them, extensive peace and

newly-built field-bakeries, private and joint-stock bakeries all work together to the common end.

If we have the fixed intent to utilise all these means in war to their fullest extent, and perfectly freely; if the preparations—which it is impossible, considering the shortness of the time, to carry out promptly after mobilisation has taken place—be made with foresight and prudence in time of peace, *then, but then only*, is it possible to be equal to the task of supplying the needs of the martial hosts of the present day, when all generalship strives continuously towards a rapid course for the military operations.

"The strength to endure privations is one of the noblest virtues in a soldier, and where it does not exist, there is no army of real warlike spirit; but this privation must be merely temporary, caused by the force of circumstances, and not the result of a miserable and poor system, or of a parsimonious abstract calculation of absolute necessity."*

An intimate bond of union between leadership and administration, and the co-operation of the general staff and the quartermaster's department, is always indispensable, in order to render the measures which have been adopted really serviceable to the troops. The French were lacking in this respect in 1870. The commander-in-chief's department made its dispositions of the troops and communicated them to the quartermaster's department, and left it to provide for the provisioning of the troops. In spite of the high position of the officials, an intimate interchange of opinions between them and the generals was wanting. It is well if the commander-in-chief makes his plans first, without inquiring into the commissariat question. But then a confidential discussion should take place with the quartermaster. It must be his principle, to make the impossible possible. But that will very frequently be only able to be done if he is properly backed up by the *ober-kommando*, by the troops, and the train-officials.

The quartermaster of an army must be in the confidence of the general. For here, too, everything centres in the choice of the person. Men who make difficulties only in order to lend importance to their position and their person are dangerous in such a

* Clausewitz, *Von Kriege*, ii., 1883, 4th Edition, Berlin 1880.

place. Such persons are everywhere, in peace as in war, of bad effect. They are the ruin of the armies, who have to suffer under them. Massenbach's chief fault was this unfortunate propensity; hence the great share he had in the catastrophe of 1806.

At the head of the commissariat department of an army an official who is only experienced and faithful is not sufficient. A shrewd head belongs there, that knows how to grasp things whenever they offer an opportunity. But the quality must also belong to it of gaining influence in intercourse with high military men. A winning, but yet firm nature, aids best to this end.

If the arrangements made behind the army suffice for the commissariat, they will also serve for supplying the troops with ammunition, clothes, and equipment; for the weights and masses, the forwarding of which is here necessary, are as nothing when compared with the food supplies for men and horses.

It will generally be possible to keep up the ever diminishing supply of ammunition by bringing up such-like stores by railway from the principal depôts, without further intermediate links than the emptied ammunition-trains of the army corps, as the experience of 1870–71 shows us. But prudence demands, besides, that a field-ammunition-park should be formed, in order that no hitch may be caused if the railway is torn up. In the main, it will be able to be brought up to the scene of action without horses being specially detailed for the work; as, for the transport upon the country-roads, horses can be hunted up or be taken from abandoned conveyances, and, in case of necessity, from the horse-depôts. With regard to clothing, in the case of long wars, where the troops have their own small workshops, difficulties arise as to the deficient unity of the measures adopted. We have hitherto helped ourselves well over difficulties of this kind with the hope that a good uniform brought from home must last over the short space of a campaign. This, in the Franco-German war, was shown to be partly deception. The bad state of the soldiers' clothes and boots threatened, especially in the campaign on the Loire, to become disastrous. In December 1870, some German soldiers might have been seen plodding along the miry roads, in the depth

of winter, barefoot, whilst many had only wooden shoes and linen trousers. In the division of the Grand Duke of Mecklenburg, after the fatiguing marches which had been made since the middle of November, there were many weak companies in which forty men and more were quite without shoes. "Lastly, I observe,"—at that time the chief of the general staff of the IInd Army reported to the great head-quarters—" that the shoes of the troops are in such a state as hardly to be capable of repairs: with a few rest-days we shall endeavour to mend matters a little. Many articles of clothing intended for the corps are warehoused, for instance, for the 10th Corps in Lagny,* without its having as yet been possible for us to have them brought up to the front." When the above-mentioned corps marched, in January, through Le Mans, after its victorious battle, it was found in a plight vividly reminding of the description of the troops of York before Paris. There was scarcely a soldier who was clothed in the regulation manner. Heaps of civilian's garments were seen in the ranks. With the exception of the ominous French red breeches, which might easily have called forth a Prussian rifle-bullet, everything that was found was made use of. Each soldier had carefully retained a single piece of clothing, in order to show that he belonged to the regiment, if it was nothing more than the helmet, on which generally a part of the rim was wanting. Remarkable was this tatteredness, in contrast to the fine military bearing and fresh looks of the soldiers. They were well fed. But had the operations lasted much longer, the deficiency of clothes would have become a serious matter. It cannot, moreover, be denied that such a state of things must, in process of time, have unfavourable effects upon order and discipline. We have, in a former place, pointed out the advantage of small economies practised by the troops in time of peace.

During a war, great central workshops are essential. Napoleon established them even at the scene of hostilities. The industries of the enemy's country can frequently be turned to good account; as, for instance, was done in the spring of 1871, at Tours, by the 10th Army Corps.

Hand-in-hand with these arrangements, go the establishments

* Before Paris.

for the treatment or transport of the sick and wounded. The field-hospitals only provide them with shelter at first; they are then handed over to the care of the army hospital corps, which organises permanent hospitals at the rear of the army, whilst following up its advance. It is an established principle that every sufferer who can bear the journey shall be taken further back towards the rear, where is greater quiet and security. Along the lines of communication, train-hospitals are built for receiving and treating the sick and wounded passing through; hospital and medical trains move upon the railways, ever taking back into great hospitals at home such as are in need of medical treatment. Good arrangements of this kind, and especially the prospect of speedy succour, strengthen the soldier and give him fresh courage, besides calming him in the hour of peril. Suitable places for those recovering, who will soon be drafted back into their regiments, must also be provided. Good supervision of the sick and those temporarily away from the army, and stopping behind it, must prevent numerous forces from being idly withdrawn from the front. For sick horses in 1870 great depôts were established upon the rear-lines, and in them numerous beasts, which would otherwise have been lost, were again made serviceable.

It can readily be understood how difficult it is to exercise surveillance over these confused arrangements in the rear, and what a careful organisation is necessary. Enforcing administration in the parts of the enemy's country that have been occupied, organising and guarding magazines, hospitals, and depôts, the establishment of secure train-roads upon all the rear-lines of communication by garrisoning a number of points along them, guarding country on either flank with garrisons and detachments of troops, all go, so far as safety enjoins it, hand-in-hand with the organisation and control of the whole transport, escort, and railway service. The supreme command of the army needs special authorities for these branches, the "General Etappen Inspection," under the control of which the railway system is placed. "Inspections" are to be found in each of the several armies, "Commandanturen" upon the various train-roads of the corps. Commissioners regulate the traffic on the railways. The

starting-points and termini of the lines which are exclusively given up to the service of the army demand special attention, and require to be furnished with strong garrisons and extra depôts. Here, too, only the needs of the armies, and the natural conditions obtaining at the actual scene of hostilities, must decide these matters.*

If large tracts of the enemy's country have been occupied, governors—as was done in France by the Germans in 1870—are appointed, who unite in their persons both civil and military authority.

Of what importance fresh drafts of men are for an army, is shown by the numbers I have already quoted as being the amount of the loss suffered by a great army in sick alone. Therefore the organisation of the relay system must not merely be first improvised in war-time, but must, in time of peace, be worked out thoroughly, at all events on paper, in case such divisions are not actually embodied. The bad method of reinforcing armies by new unities, instead of by fresh drafts bringing the old ones up to their normal numbers, has been long since discarded in all great armies. Only the army of the Northern States of America suffered temporarily from this during the War of Secession. It was therein very clearly seen how useless and valueless too weak cadres are, which still retain their high-sounding names. The most practical course is to replenish them, and only to draft the surplus into special newly-formed bodies.

The losses caused in the ranks of the army in the field are so excessive that really quite at the commencement of the operations drafts of men might well begin to be made, not to stop again during the whole campaign. At all events, a certain definite percentage of loss, which must not be placed too high, must not be allowed to be exceeded without relays being brought up. It must be insisted, further, with iron severity, upon the fresh drafts being forwarded to their destination without delay. Upon the lines of communication, in the middle of a hostile and often unquiet country, the new arrivals are welcome guests, whom one there would willingly

* Meckel, *Taktik*, p. 25, gives a very clear sketch of the probable organisation of the rear and railway service in the several armies.

retain against their will. Only too readily are they regarded for a time as good prize by a hard-pressed commandant of train and baggage. The army, during the war, is like a never-cloying giant, who ever and perpetually requires food, and who, like Antæus, only keeps his strength so long as he is able to draw it afresh from the soil of mother earth—that is from the soil of the Fatherland. In a double sense is this simile true; the moral vigour of an army springs from the love it bears to the Fatherland; its material strength from the self-sacrifice of the Fatherland and from unbroken connection with it.

The picture I have here drawn allows us to perceive how the enhanced resources of modern days correspond to the increased demands. Armies are no longer chained to a single line, are no longer dependent upon the possession or loss of one of the sources of their strength. They are based upon the whole country lying at their back, and, as long as the telegraph and railways connect them with it, upon the whole of their country.

SECTION X.

THE ATTAINMENT OF THE ENDS OF THE WAR.

With especial suspense do we look towards a war in the future. Everyone is filled with anticipation that it will be waged with a destructive force such as has hitherto never been displayed. War is now an exodus of nations, and no more a conflict between armies. All moral energy will be collected for a life and death struggle, the whole sum of the intelligence residing in either people will be employed for their mutual destruction. Great as are the armies, just as great will the destruction that follows in their wake be. No doubt whatever, the wars of the future will be waged with a serious earnest that would appear to ancient chivalry exceedingly unpleasant. The more that natural motives and national enmity come to be expressed, the more lasting will the display of force be. Much as the masses, who have learnt to treasure the value of existence, may loathe war, they are yet led by the feeling that under certain circumstances it cannot be avoided. Inward consciousness makes it felt that a nation, just as an individual, has, during its time on earth, to fulfil a certain mission. In discharging their duties of civilisation, nations come into collision with each other. What was it that, in 1870, in consequence of the French provocations, produced in the most peace-going country in the world a mighty torrent of martial enthusiasm? It was nothing but the feeling that the hour had at length come for the centuries-old dream of German unity to become realised, and that the Fatherland should, once and for all, make an end of the historical period during which it had been the cockpit for foreign armies and foreign influ-

ences. Who, on the 15th of July 1870, would have considered it possible that Germany could retire from the battle that was offered it? But darkly and dimly did even the lowest in the nation conceive of the mission of his nation to command respect by its energy, in order for the future to stand forth in its might in the heart of Europe, as the guardian of its peace.

Where such forces set great resources into motion, it would seem that wars can only end with the entire annihilation of one party or the complete exhaustion of both.

As a matter of fact, the increasing national consciousness and the political realisation of the principles of nationality have increased to a marvellous extent the powers of resistance of states. No Frenchman feared when we were on the Loire, that we should retain the land up to that point by the law of conquest; no German conceived of it. Still less was a complete subjugation possible. The national unity of states protects them from forcible dismemberment; for the victor also understands that the division of a conquered realm must needs be a source of continuous wars. Thus the anxiety respecting the loss of provinces is restricted to a certain measure. It will act as a pressure upon the firmness of an enemy, where the elements of a state are losely joined and are not based upon tribal community.

Frontier districts, in which the population is a mixed one, are also in danger. Their nationality is doubtful and can be claimed by both parties. Further apprehensions cannot go, and on the whole it has become much more difficult to coerce a great state into yielding than was formerly the case. A recognition of this principle was the animating motive in the resistance which France displayed, in spite of the loss of the imperial armies. Gambetta, after his plans had come to nought, answered in reply to the question of his judges, as to whether he believed in the possibility of a final triumph for the defence, without hesitation:—

"Certainly I believe in it. I am convinced that if the Government in Paris, which was a captive Government, had only capitulated for Paris, which was its undisputed, nay its sole right, and if it had not tied the hands of the country, by acceding to the surrender of the whole of France, the country would, with the resources at its disposal, which might have been increased, and

which did as a fact increase day by day, have finally ridded itself of the invaders. There is no nation in Europe that has not at one time had the enemy on its soil, and has not endured his presence there for long, but has at last driven him out."

The Roman principle meant the same, never to conclude peace in disaster. And to this the empire thanked its rise. If such obstinacy and persistence were indulged in by both sides, the end of the struggle would only be conceivable after general devastation and pauperisation had completely exhausted the physical forces, and long-suffering the moral. It is, as a matter of fact, imaginable that, in order to carry through its will, with arms in its hand, against an obstinately-resisting people led on by a great man, it may be necessary to completely flood the foreign country with troops and to put a pressure lasting for years upon the population.

But to this extreme push, matters will only but very rarely, nay, in the case of prosperous civilised nations, perhaps never, come. A time will arrive, before complete exhaustion, at which the yearning for peace will in the vanquished state be stronger than the desire for a continuation of the struggle. To enable this point of time to be determined, many circumstances besides the natural qualities of the nation will intervene. A pressure is soonest possible, and will work most rapidly, where a numerous and prosperous civilian class exists, where a widely-developed industry and a rich commercial class prevails. For here is the damage, which results from the presence of victorious masses of the enemy, comparatively the most keenly felt. And this, again, must not be lost sight of, that such popular elements best possess the means and the ways of giving effectual expression to their wishes. They control the press, and by it sway public opinion, and will soonest be able to thrust aside the elements that clamour for more war, or at all events be able to deprive them of their influence. A flourishing middle class makes every state weak; for it is soonest inclined, after a few disasters, to give up the matter for lost, and it yearns most for the return of a calm ordinary state of things, which does not afford any unwelcome interruptions to the increase of prosperity and the enjoyment of earthly goods.

But things look different where there exists in the main only a ruling aristocracy and a peasant class, and the middle class are

either wanting or are without any power and influence. The aristocracy, whether it consist of a noble class or of a circle of moneyed persons, finds means of escaping the immediate pressure of an enemy. And the injury done them, which affects but a fraction of their whole property, is not sensibly felt. The peasantry, again, which suffers most under the presence of the hostile forces, has not the means in its hands of enforcing its wishes after the end of the war. Hence it results from these conditions that, when the great strength of an individual man does not counteract the natural course of things, pressure can more readily be exercised upon countries like France, Germany, Italy and Austria, than upon Poland or Russia. Under the simple duration of a state of war, one state beyond doubt suffers comparatively more than another. That will, of course, have great influence upon its firmness.

The form of government is also of importance. A king restricted in nothing will be able to develop the highest degree of martial energy. But, in his case, the feeling of personal responsibility makes itself the more felt, in proportion as others have a less right to exercise influence upon him. Accordingly, it quite depends upon how far his character is capable of bearing easily high responsibility. A parliament may be quite as well the support of peaceful inclinations as of warlike passions ; because its attitude is quite dependent upon the prevailing public opinion. A handful of determined fanatics, which knows how to quit itself from all responsibility, because it asserts that it is only carrying out the popular will, may protract a hopeless war, which an absolute sovereign would have long since ended. Such a one will comport himself more in accordance with the wishes of his subjects than will a small knot of political partisans. Most favourable for the display of martial energy is the position of a dictator at the head of affairs in the hour of danger. His powers are like those of an absolute sovereign, and the reponsibility falls upon those who have instituted him, or who have acceded to his usurpation of the supreme power.

Many other circumstances also influence the persistency of war-passions; the momentary state of affairs, the feelings of the people, historical recollections and experience, confidence in leaders, faith or mistrust in existing institutions, the shipwreck of hopes which were regarded as certain. The manner in which the victor

makes his power felt either paralyses or encourages resistance. The more unexpected a blow of fate is, the most powerful are its effects wont to be. The news of the rout of the army at Jena and Auerstädt stunned Prussia in 1806 so completely, because, before the war began, such a catastrophe had never been considered possible.

It will, therefore, not be necessary, as a rule, to proceed to seize the enemy's territory. Frederick the Great was right when, in 1757, he expected, from the complete defeat of the Austrian army in Bohemia, the end of the campaign, and compared, beforehand, the expected battle with that of Pharsalus. "By such a defeat at Prague the power of Austria's resistance would not, of course, have been really and finally broken," Theodore von Bernhardt remarked *à propos* of that occasion, "but neither in the position of things in the world, nor in the spirit of the age, nor in the constitution of Austria specially, nor in the kind of interest which the peoples of this empire, or even the influential classes, took in the object for which this war was waged, lay any cause for supposing that the enemies of Prussia would display extreme heroic firmness. King Frederick was better acquainted with the moral factors of success than were his contemporaries, and could adapt them quite as well as Napoleon; he knew quite as well as he, 'ce que c'est que la terreur'—and he might expect, with the same right as Napoleon at Austerlitz, that the stunning, disencouraging blow would bring about peace."

In the magnitude of the scale of which it was waged this campaign of the king, accordingly, was similar to all those that have in modern times been directed towards the annihilation of the enemy.

That *annihilation* means, in these days, something quite different to what it did in the Napoleonic times, lies in the altered state of nations, especially in the fact that the national feeling has now been aroused, which makes all *one and indivisible.*

The first thing that must be done towards the attainment of the object of the war is, that the enemy must be deprived of that hope of victory, which rests upon apparent counterpoises, by the destruction of his armies in the field. Thereby an important step has been attained, and this is sufficient, perhaps, at once

to wring the desired peace from a weakly nation. The next step is to deprive one's adversary of the belief in the return of the faithless fortune of war. This is best done by the capture of the capital, the occupation of those places or districts which are best suited for furnishing the means of a re-organisation of combative forces, and the capture of great strongholds which stop or impede the advance of the armies. Politics will, at this stage, be a powerful helper, by depriving the vanquished of all prospect of extraneous assistance. Last of all comes the last means, a pressure exercised upon the most prosperous and sensitive districts, or the occupation of the whole country and the cutting off of its communications with the outside world. This is the *ultima ratio* of war-waging.

With perfect right may an attempt be made to form a picture of the martial energy to be expected of the enemy, in order thus to enable us to measure our own prospects, and to take measures accordingly. Yet the result of this investigation must never permit us to advance against a powerful state with a *part* of our forces. It is never possible to foresee what chance incidents, what personal influences or political revolutions may unexpectedly increase the enemy's tenacity. It was the chief error of the Allies in the first war of coalition, that they allowed themselves to be deceived in this particular. Even when we confidently believe that we shall attain our object with one of the first stages of the effects of war, we shall most surely, most quickly, and most completely reach this end by employing all our forces. The presence of troops which are, after all, not needed for the victory on the battle-field, increases, all the same, the moral impression of superiority. A fault in the opposite direction, a too short calculation of forces, may just tend to increase the enemy's perseverance, which was at first but small, and thus protract the war.

Thus in the future, also, where the enemy deserves in any respect to be considered our equal, we shall do well to make our preparations, under all circumstances, with the view that we may perhaps have to proceed to extremities.

SECTION XI.

CONCLUSION.

So long as earthly nations strive after earthly goods, so long as they aim at securing for all future generations both room for development and peace and respect, so long as they, led on by great spirits, strive beyond the narrow compass of everyday needs towards the realisation of political and civilising ideals, so long will there be war. What use is it to dispute whether war has an ennobling or degrading effect upon mankind? Certainly, the frequently quoted simile, that war is like a thunderstorm, which clears the air under great convulsions, must be only conditionally applied. The Thirty Years War changed Germany into a wilderness, and brought about a demoralisation without a parallel. What we have experienced for the last twelve years in our fatherland, permits us only to believe with difficulty in the cleansing effects of the last war. On the other side, we rightly call the time when Prussia, after having fallen low, lifted up her head and snatched up arms to liberate herself, the time of her greatest glory. The disaster that had preceded had, in reality, like a thunderstorm, dispersed all the oppressive heat that had relaxed all life. A fresh breeze blew through the land. The moral effects of wars are different, according to the form which they adopt, according to the issue they take, and according to the times in which they fall. We must make the best of what the Gods send. *True it is: wars are the lot of mankind; are the inevitable destiny of nations. Eternal peace is not the lot of mortals in this world.*

To-day it is not sufficient, then, to fulfil Machiavelli's demand that the prince should know the war; the nations themselves do not less need this knowledge. They ought to know how to forge weapons, to strengthen their arms in order to carry them, and steel their heart so as to endure the hardships which a struggle for the Fatherland entails.

It is not difficult to acquire *understanding* for war. "The waging of a war is in itself very difficult, of that there is no doubt; but the difficulty does not lie alone in the fact that special erudition or great genius is demanded in order to perceive the true principle of conducting war; of this every well-organised head who is without prejudice, and who is not utterly ignorant of the matter, is capable. Even the application of these principles upon the map and paper entails no difficulty, and to have sketched out a good plan of operation is no great masterpiece; the whole difficulty consists *in faithfully carrying out the principles one has proposed to himself.*"

So Clausewitz teaches us.

The simple application of simple factors, of which these pages have endeavoured to give us a picture, a knowledge of the moral levers, an insight into human nature, and the capacity of conceiving clearly a sensible aim, that is all the knowledge required. Deficient experience may, to a limited extent, be made good by an attentive study of former campaigns.

If, in spite of this, the spring to "being able" is still a great one, this is purely due to the fact that the machine—the army—needs a vigorous hand in order that it follow punctually the pressure, and that, moreover, the execution of all plans only takes place under the continuous counteracting influence of the enemy and under the impression of danger. Clausewitz compares the whole waging of war "to the working of a compound machine with enormous friction, so that what can easily be sketched out on paper can only be carried into execution with great exertion."

The movement of the masses is like the slow tread of an ox before the plough. It appears to be so easy to keep him going in his direction, and it is so for the practised hand.. But let a novice lend his hand, and what looked so dragging and plodding gains apparently the speed of a storm. In spite of the best geometrical knowledge, and the clearness of the object in view, the line, which

it was intended to go straight, makes the most marvellous bends and curves.

Personal frictions, unfortunate occurrences, misunderstandings and errors, added to these the excitement of the battle, the feeling of always standing face to face with events which may bring great good fortune or unutterable disaster, these are the powers that in war test character the most, which can only be conceived of by him who has learnt to know them.

They have made many a talented man, who with the boldest hopes, and supported by the necessary perception, has endeavoured to discharge the duties of a general, after great exertion, despair with a broken heart.

When the sphere of warfare has been rightly studied, and the principles of the most famous commanders have been digested with the aid of a tried expounder, there arises involuntarily in our hearts the desire to try our own strength, and to come into the situation of Bonaparte at Marengo, or of Frederick at Rossbach, Leuthen, and Liegnitz. But if we cast our eyes back upon the instances of unfortunate captains who, with like lights, coveted the same as we, attained their hearts desire, and came to grief, only to be branded by posterity as criminals and weaklings, a man who is really in earnest shrinks back for a moment.

Is then a knowledge of war valuable to the ordinary mortal, when it may only tempt him, perhaps, to dare difficult things to his own disaster? Certainly!

What true soldierly natures would not, all the same, after a short hesitation, in spite of all scruples, dash at the opportunity, when offered, of wielding the bâton of a field-marshal? The prize is a great one; it is that which beckons to the poet and the artist on his thorny way—Immortality. An irresistible magic lies in this word. The fortunate warrior rescues his name from oblivion. The names of Frederick and Napoleon will ring so long as the world lasts.

"But is it worth the while to lay such heavy trials upon the masses, in order that a single man shall be deified? The thousands that have fallen for the glory of the great commander are not mentioned. They go empty of their reward." This may be the opinion of short-sighted wisdom. We regard things diffe-

rently. Even the greatest captain needs many clever, true, and bold assistants, and *they share in his glory.*

If the graves could open, and a Macedonian, who marched with Alexander through the Granicus, were to-day to come before us, we would believe, and were it only a simple warrior, that Alexander himself stood before us. Would not a Carthaginian soldier, who crossed the Alps in Hannibal's army, appear as a part of the great Roman enemy himself? The memory of posterity allows in its mind the simplest warrior to have an immediate share in the greatness of the commander. It sinks all differences of rank, and in its reverence of great deeds awards its meed of praise to all those who participated, though they were of the lowest rank. Would we not gaze with respect and admiration upon a Grenadier who fell at Leuthen, were he to rise out of the earth, and forget that he was only a soldier like many others, who lived with him, and of whom there are many in our days. A happy destiny allowed him to play a part in a great historical deed, and this ennobles him in our eyes; we do not inquire into his personal merits. In like manner, future generations will one day envy the men who went to war with King William against Austria and against France, and laid the foundations of German unity. That even the unknown and unmentioned soldier, who would otherwise only live in order to live, to labour and to eat and drink, shares in war the fate of great heroes, of rare geniuses, and is a helper in their great work, is reward enough. Even the crudest will not lack something of the feeling that here he raises himself above the toilsomeness of everyday existence. *Whoever has a heart, feels it beat higher and becomes enthusiastic for the profession of a soldier.* To defend the Fatherland, means also to gain the thanks of the Fatherland, and to knit one's name and one's being together with the name and the fame of one's king, one's captain, and one's people.

The realms that are built up and made great by the sword last, it is true, but their time, like everything else that has ever been or will be in this world. "The destiny of nations is like that of men; they arise, they grow, they bloom, they decay, and cease to be." But it is worth more to make good use of the time, than to overlive it like dried flowers in the spring. As yet no historian has ever placed the Chinese higher than the Greeks and the Romans, because

they have outlived these. The consciousness of working for transitory greatness cannot affect the pleasure of the work. If only the name lives on, and if what a nation has done for the development of the human race was great, it may one day become transformed into other forms; it has lived enough. To have a share in its achievements is sufficient in order to be recorded by history for all eternity.

We Germans to-day are in a happy position. The star of the young Empire has only just risen on the horizon; its course lies still before it. The way up to the zenith is more cheery than that down the hill. And if ever a rising State afforded a guarantee of long existence, so is it a strong, united, and military Germany in the midst of the Great Powers of Europe. Such a position is rightly called perilous. But it is the consciousness of this danger that keeps the energy alive. Certainly were our Fatherland to rest upon the laurels it has won, and give itself up to the pleasant dream that its existence, its respect, and its security has been once and for all guaranteed, and that its neighbours are, after all, not ill-minded, then it would perforce soon become their prize. Accessible to all, in the way of all, were they minded to extend themselves, its frontiers composed of fragments of peoples who consider their centre of gravity, either from tradition, or from restlessness and love of change, to lie beyond, not closed by natural boundaries, it would have to bear the expense of every revolution in our part of the world. But so far, as far as human probability can conceive and provide, it will not come to this. A strong arm and a sharp sword will protect the heart of Europe.

But we must keep before our eyes the fact that we have yet to reach our zenith. Excelsior! is our watchword. Continuous labour to perfect our national offensive and defensive military system must, for a long time to come, be our highest political wisdom. Hand in hand with it must go the *increase* of our moral forces, which decide everything in war; *increase*, not maintenance; for "never are moral forces at rest; they fall as soon as they no longer strive to increase."*

First of all, then, it is necessary to make it clear to ourselves

* Scharnhorst in April 1806.

and our children growing up about us, and whom we have to educate, that a time of rest has not yet come, that the prophecy of a final struggle for the existence and greatness of Germany is not a mere fancy of ambitious fools, but that it will one day unavoidably come, with full force, with the seriousness which every struggle deciding the fate of a nation entails before a new political system has been unreservedly recognised. Then in this consciousness that must form the foundation, we must by example, by word, and by pen, continuously work towards this end, that loyalty towards the Emperor, passionate love for the Fatherland, determination not to shrink from hard trials, and self-denial and self-sacrifice may wax mightier and mightier in our hearts and in those of our children. Then will the German army, that must and shall remain the German nation in arms, be in the coming conflict, also, assured of victory.

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